

THOMSON MULTI MEDIA

Brandt FERGUSON SABA TELEFUNKEN THOMSON

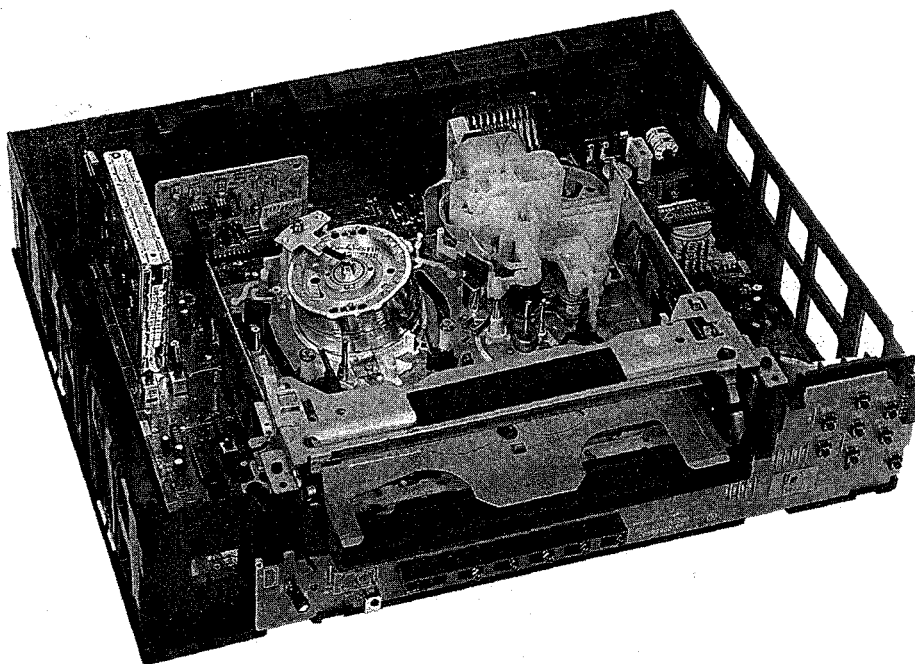
VIDEO



SERVICE MANUAL
DOCUMENTATION TECHNIQUE
TECHNISCHE DOKUMENTATION
DOCUMENTAZIONE TECNICA
DOCUMENTACION TECNICA

R/T 6000

Additive to SM | 350 411 70
Additif au SM
Ergänzung zum SM
Aggiornamento del SM
Suplemento al SM



WARNING : Before servicing this chassis read the safety recommendations.
ATTENTION : Avant toute intervention sur ce châssis, lire les recommandations de sécurité.
ACHTUNG : Vor jedem Eingriff auf diesem Chassis, die Sicherheitsvorschriften lesen.
ATTENZIONE : Prima di intervenire sullo chassis, leggere le norme di sicurezza.
IMPORTANTE : Antes de cualquier intervención, leer las recomendaciones de seguridad.

Code : 350 669 80 - 0898 / 14M - R/T6000 Print. MALGOGNE/SAILOUR - AVRILÉ

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Do not disconnect modules when they are energized!

Repairs on power supply section are to be carried out only with isolating transformer.

Ne pas retirer les modules lorsqu'ils sont sous tension. N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch Mode) qu'au travers d'un transformateur d'isolement.

Module nicht bei eingeschaltetem Gerät entfernen!

Servicearbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

Non scollegare le piastre quando sono alimentate!

Per le riparazioni sulla sezione alimentatore, utilizzare un trasformatore isolatore.

No desconectar los módulos cuando están activados. Las reparaciones en la sección de alimentación de energía deben ser ejecutadas solamente con un transformador de separación.

Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.

Le remplacement des éléments de sécurité (repérés avec le symbole) par des composants non homologués selon la Norme CEI 65 entraîne la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.

Wenn Sicherheitsteile (mit dem Symbol gekennzeichnet) nicht durch Original - Ersatzteile ersetzt werden, erlischt die Haftung des Herstellers.

La sostituzione dei componenti di sicurezza (evidenziati con il segno) con componenti non omologati secondo la norma CEI 65 comporta la non conformità dell'apparecchio. In tal caso è "esclusa la responsabilità" del costruttore.

La sustitución de elementos de seguridad (marcados con el símbolo) por componentes no homologados según la norma CEI 65, provoca la no conformidad del aparato. En ese caso, el fabricante cesa de ser responsable.

MEASUREMENT CONDITIONS - CONDITIONS DE MESURES - MESSBEDINGUNGEN CONDIZIONI DI MISURA - CONDICIONES DE MEDIDAS

RECEIVER:

On UHF input level: 1 mV, bar test pattern:

- PAL, 1 standard, 100% white.

Via the scart socket, input level: 1 Vpp, bar test pattern:

Colour, contrast and brightness at mid-position, sound at minimum.

Programme selected: PR 01.

DC voltages measured between the point and earth using a digital voltmeter.

RICEVITORE:

In UHF, livello d'entrata 1 mV, monoscopio con barre:

- PAL, norma G, bianco 100%.

Via SCART, livello d'entrata 1 Vpp, monoscopio con barre:

Colore, Contrasto, Luminosità a metà corsa, Suono minimo.

Programma designato PR 01.

Tensioni continue rilevate rispetto alla massa con un voltmetro digitale.

RECEPTEUR:

En UHF, niveau d'entrée 1 mV mire de barres

- SECAM, Norm L, Blanc 100%.

Par la prise Péritélévision, niveau d'entrée 1 Vcc, mire de barres.

Couleur, contraste, lumière à mi-course, son minimum.

Programme affecté PR 01.

Tensions continues relevées par rapport à la masse avec un voltmètre numérique.

EMPFÄNGER:

Bei UHF Eingangsspegel 1 mV, Farbbalken:

- PAL, Norm G, Weiss 100%.

Über die Scartbuchse: Eingangsspegel 1 Vss, Farbbalken:

Farbe, Kontrast, Helligkeit in der Mitte des Bereichs, Ton auf Minimum.

Zugeordnetes Programm PR 01.

Gleichspannungen mit einem digitalen Voltmeter zur Masse gemessen.

RECEPTOR:

En UHF, nivel de entrada 1 mV, mira de barras:

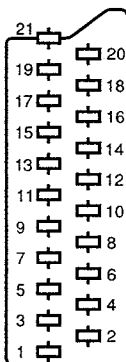
- PAL, norma G, blanco 100%.

Por la toma Peritelevision, nivel de entrada 1 Vpp mira de barra.

Color, Contraste, luz a mitad de carrera, Sonido mínimo.

Programa afectado PR 01.

Tensiones continuas marcadas en relación a la masa con un voltímetro digital.



NOTE: **(MAIN)** ... etc. identifies each pcb module.

NOTE: **(MAIN)** ... etc. repères des platines constituant l'appareil.

HINWEIS: **(MAIN)** ... usw. Kennzeichnung der Platinen, aus denen das Gerät zusammengesetzt ist.

NOTA: **(MAIN)** ... ecc. indicazioni delle piastre che costituiscono l'apparecchio.

NOTA: **(MAIN)** ... etc. marcas de las placas que constituyen el aparato.

	ENGLISH	FRANÇAIS	DEUTSCH	ITALIANO	ESPAÑOL
1	AUDIO "R"	AUDIO "D"	AUDIO "R"	AUDIO "D"	AUDIO "D"
2	AUDIO "R"	AUDIO "D"	AUDIO "R"	AUDIO "D"	AUDIO "D"
3	AUDIO "L"	AUDIO "G"	AUDIO "L"	AUDIO "S"	AUDIO "I"
4	AUDIO	AUDIO	AUDIO	AUDIO	AUDIO
5	"BLUE"	"BLEU"	"BLAU"	"BLU"	"AZUL"
6	AUDIO "L" MONO	AUDIO "G" MONO	AUDIO "L" MONO	AUDIO "S" MONO	AUDIO "I" MONO
7	"BLUE"	"BLEU"	"BLAU"	BLU	AZUL
8	SLOW SWITCH	COMMUT. LENTE	AV UMSCHALTUNG	"COMMUTAZIONE LENTA"	"CONMUTACION LENTA"
9	"GREEN"	"VERT"	"GRÜN"	"VERDE"	"VERDE"
10 NC					
11	"GREEN"	"VERT"	"GRÜN"	"VERDE"	"VERDE"
12 NC					
13	"RED"	"ROUGE"	"ROT"	"ROSSO"	"ROJA"
14 NC					
15	"RED"	"ROUGE"	"ROT"	"ROSSO"	"ROJA"
16	FAST SWITCH	COMMUT. RAPIDE	AUSTASTUNG	"COMMUTAZIONE RAPIDA"	"CONMUTACION RAPIDA"
17	VIDEO	VIDEO	VIDEO	VIDEO	VIDEO
18	FAST SWITCH	COMMUT. RAPIDE	AUSTASTUNG	"COMMUTAZIONE RAPIDA"	"CONMUTACION RAPIDA"
19	VIDEO	VIDEO	VIDEO	VIDEO	VIDEO
20	VIDEO OR "SYNC"	VIDEO SYNCHRO	VIDEO ODER SYNCHRO	VIDEO O SINCRIO	VIDEO O SINCRIO
21	PLUG SCREEN BOX	BLINDAGE PRISE	ABSCHIRMUNG DES STECKERS	INVOLUCRO METALLICO DELLA PRESA	BLINDAJE DEL ENCHUFE

: INPUT - ENTRÉE - EINGANG - ENTRATA - ENTRADA • : OUTPUT - SORTIE - AUSGANG - USCITA - SALIDA • : EARTH - MASSE - MASSE - MASSA - MASA

TECHNICAL DATA AND COMPOSITION OF VIDEO RECORDERS

CARACTERISTIQUES TECHNIQUES ET COMPOSITION DES MAGNETOSCOPES

TECHNISCHE DATEN UND ZUSAMMENSETZUNG VIDEORECORDERS

CARATTERISTICHE TECNICHE E COMPOSIZIONE VIDEOREGISTRATORI

CARACTERISTICAS TECNICAS Y COMPOSICIÓN DE LOS VÍDEOS

Power requirement:	220 - 240 V ± 10%	4 Heads Helical Scan system:	Consumption	17 W
Alimentation:	50/60Hz	4 têtes video:	Consommation:	4.8 W STD-BY
Netzeil:		4 Video-Köpfe: * / **	Leistungsaufnahme	
Alimentazione:		4 Testine video	Consumo:	
Alimentación:		4 Cabezas video:	Consumo:	
Programming:	SHOWVIEW	2 Heads Helical Scan system:	Sound:	Mono
Programmation:		2 têtes video:	Son:	
Timer:		2 Video-Köpfe:	Ton:	
Programmazione:		2 Testine video	Suono:	
Programación:		2 Cabezas video:	Sonido:	
Tape speed:	SP	Tape format: VHS	Power save:	30 min.
Vitesse de défilement:	SP/LP *	Format video:	Sécurité secteur:	
Bandgeschwindigkeit:	SP/LP/SLP **	Video-system:	Gangreserve:	
Velocità del nastro:		Formato video:	Sicurezza alimentazione:	
Velocidad de la cinta:		Formato video:	Seguridad red:	

SP = 23,39 mm/sec.

LP = 11,70 mm/sec.

SLP = 33,35 mm/sec. (Only NTSC PB)

For service information on the deck mechanism see separate publication "R4000 SERIES MECHANICAL ADJUSTMENTS" and "R4000 DRUM DISASSEMBLY / ASSEMBLY SERVICE MANUAL".

Pour toute intervention ou réglage sur la partie mécanique, se reporter au FASCICULE MECANIQUE R4000 ainsi qu'à son additif: "DEMONTAGE DU TAMBOUR SUR LES MAGNETOSCOPES EQUIPES DU CHASSIS R4000".

Informationen über mechanische Einstellungen entnehmen Sie bitte dem Handbuch "MECHANISCHE EINSTELLUNGEN R4000"

Ulteriori informazioni sulla meccanica si possono essere trovare nelle seguenti pubblicazioni: "SERIE R4000 REGOLAZIONI MECCANICHE" e "R4000 MANUALE DI SERVIZIO PER IL DISASSEMBLAGGIO DEL TAMBORO".

Para información de servicio técnico sobre el mecanismo de la platina, consulte la documentación separada "AJUSTES MECANICOS SERIES R4000" y "MANUAL DE SERVICIO ENSAMBLAJE DEL TAMBOR R4000"

SCHEMATIC DIAGRAMS & PCBs										
Reference	Setup Number	Interconnections Diagrams	Main PCB	Pow/TU/FI	Main Servo	Main Video	I/O Interface	Secam	KDB/FCB	JSB
THOMSON										
V2700	3A178400B49003	13-14	79-84	43-46	51-58	60-62 65-66	85-87	-	21-24	-
V4700	3A178A00B49083	13-14	79-84	43-46	51-58	60-62 65-66	85-87	-	21-24	-
V4800C	3A178E00B49083	13-14	79-84	43-46	51-58	60-62 65-66	85-87	-	15-18	-
VP2750	02108444B09103	13-14	79-84	67-70 75-78	51-58	59 63-66	85-87	45-50	21-24	-
VP2751	18228840B1B383	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	19-22	-
VP2757	79218848B8B383	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	19-22	-
VP2800F	02108404B09103	13-14	79-84	67-70 75-78	51-58	36-38	85-87	45-50	27-30	-
VP2850F	02108444B09123	13-14	79-84	67-70 75-78	51-58	36-38	85-87	45-50	27-30	5
VP2850G	18128044B19103	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	27-30	-
VP4780	02208E45B0B3A3	13-14	79-84	67-70 75-78	51-58	59 63-66	85-87	45-50	19-22	5
VP4781	18228A41B1B3A3	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	19-22	5
VP4800F	02108E04B09183	13-14	79-84	67-70 75-78	51-58	36-38	85-87	45-50	27-30	-
VP4850F	02108E44B091A3	13-14	79-84	67-70 75-78	51-58	36-38	85-87	45-50	27-30	5
VTH721	1A1188040411C6	13-14	79-84	39-42	51-58	33-35 31-32	-	-	21-24	-

SCHEMATIC DIAGRAMS & PCBs

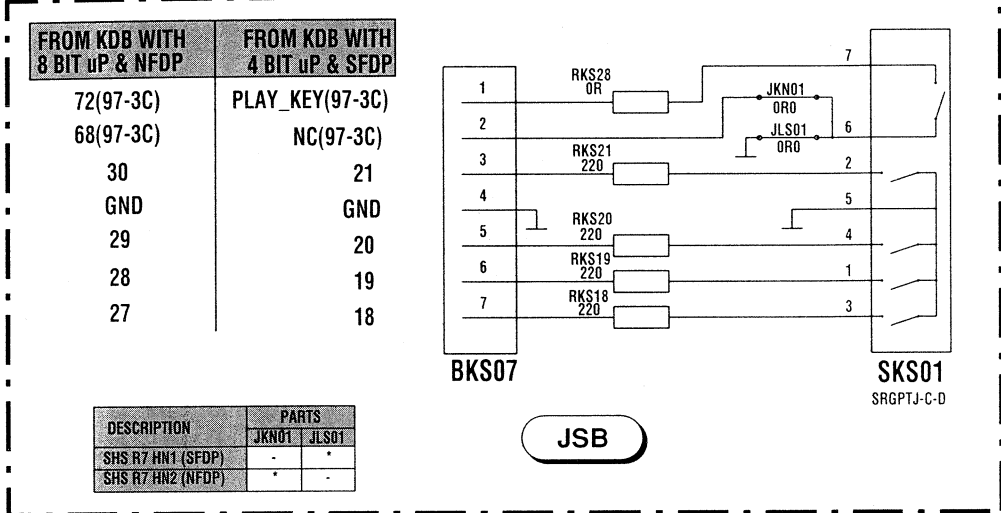
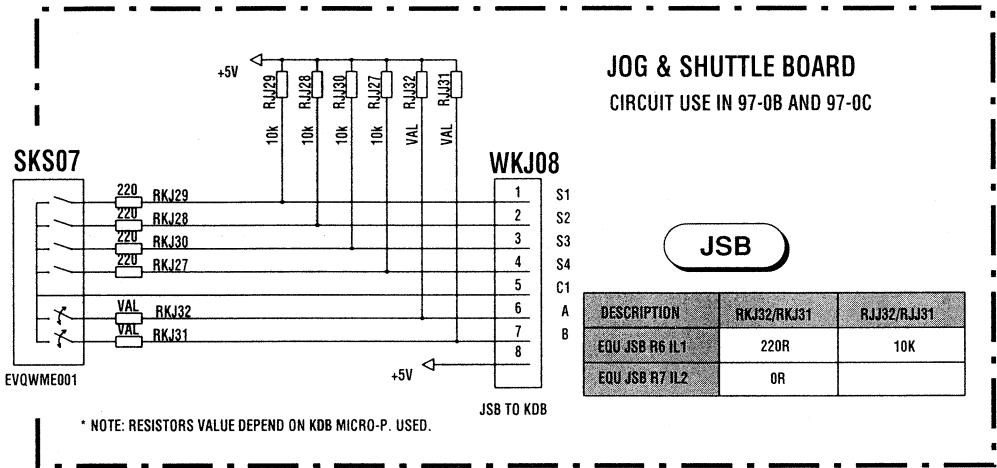
Reference	Setup Number	Interconnections diagrams	Main PCB	Pow/TU/FI	Main Servo	Main Video	I/O Interface	Secam	KDB/FCB	JSB
TELEFUNKEN										
M9820G	18128804B19183	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	7-10	-
M9825G	18128844B19183	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	7-10	-
M9840G	18128E44B191A3	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	7-10	5
SABA										
EV100F	02008404401103	13-14	79-84	67-70 75-78	51-58	36-38	85-87	45-50	41-44	-
EV100G	18028004719103	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	41-44	-
EV200G	18128004B19123	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	23-26	6
EV400F	02108E04801183	13-14	79-84	67-70 75-78	51-58	36-38	85-87	45-50	23-26	-
EV400G	18028E04411183	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	41-44	-
FERGUSON										
FV301LV	7911880CB89183	13-14	79-84	67-70 75-78	51-58	60-66	85-87	-	15-18	-
BRANDT										
VK130PS	0100840440100B	13-14	79-84	67-74	51-58	59 63-66	85-87	45-50	17-20	-
VK241PS	02008404401103	13-14	79-84	67-70 75-78	51-58	36-38	85-87	45-50	11-14	-
VK441PS	02008E04401183	13-14	79-84	67-70 75-78	51-58	36-38	85-87	45-50	11-14	-



- GB** Regarding pages not weaved, please refer to Service Manual (350 411 70).
- F** Pour les pages non tramées, veuillez vous reporter à la documentation de base (350 411 70).
- D** Seitenzahlen, die in der Tabelle nicht grau hinterlegt sind, beziehen sich auf das Service-Manual (350 411 70).
- I** Per gli argomenti non trattati in questo aggiornamento, fare riferimento al manuale di servizio relativo al telaio R6000 (350 411 70).
- E** Para las páginas no sombreadas, ver la documentación básica (350 411 70).

JOG & SHUTTLE BOARD - PLATINE JOG & SHUTTLE - LEITERPLATTE JOG & SHUTTLE - PIASTRA JOG & SHUTTLE - PLATINA JOG & SHUTTLE

SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA

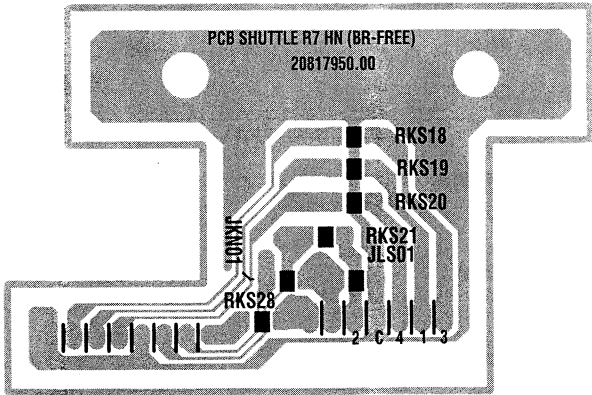
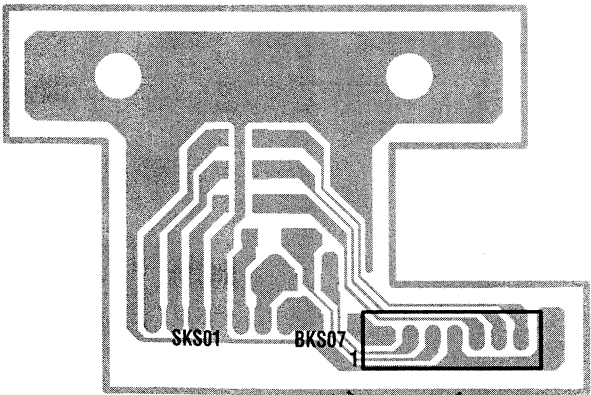
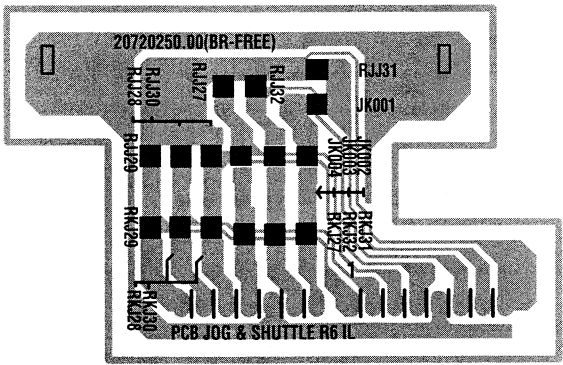
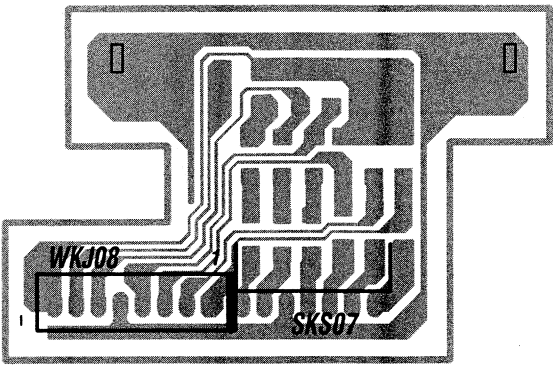


Component side -Côté composants - Bestückungsseite - Lato componenti - Lado componentes

Solder side -Côté cuivre - Lötseite - Lato saldature - Lado del cobre

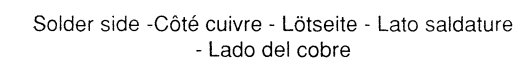
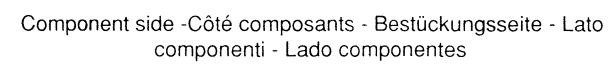
Component side -Côté composants - Bestückungsseite - Lato componenti - Lado componentes

Solder side -Côté cuivre - Lötseite - Lato saldature - Lado del cobre

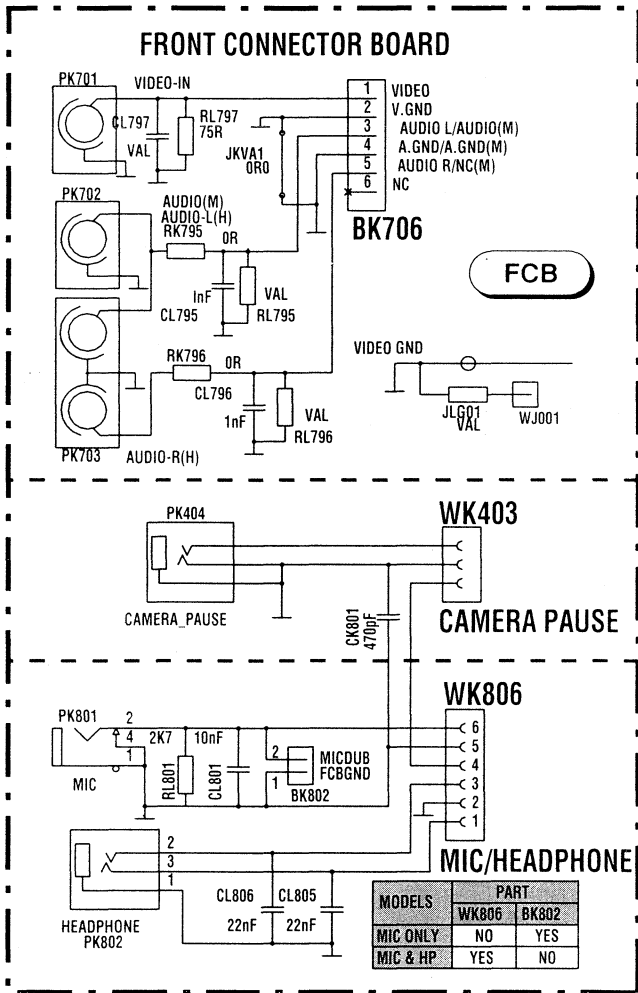
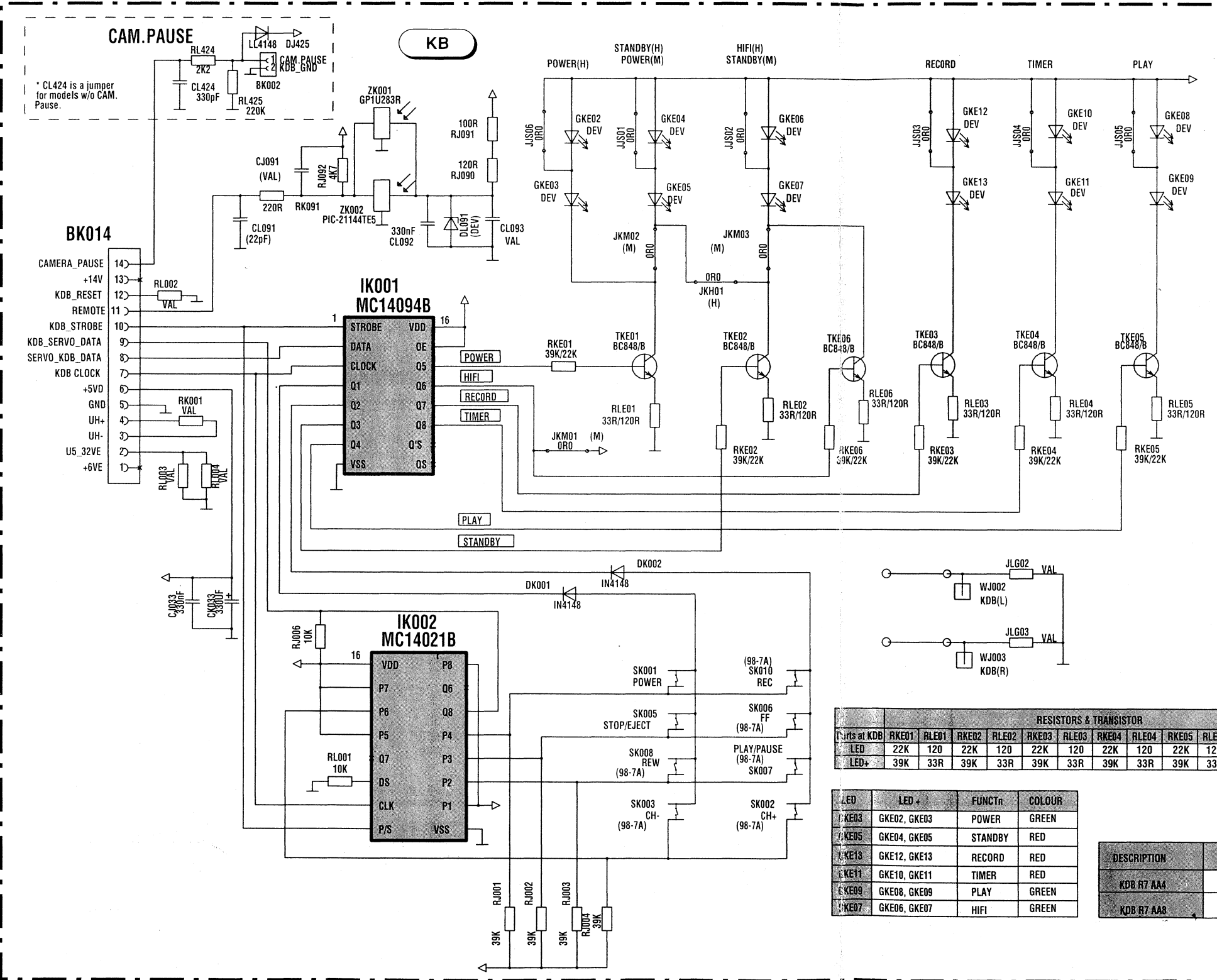


SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA

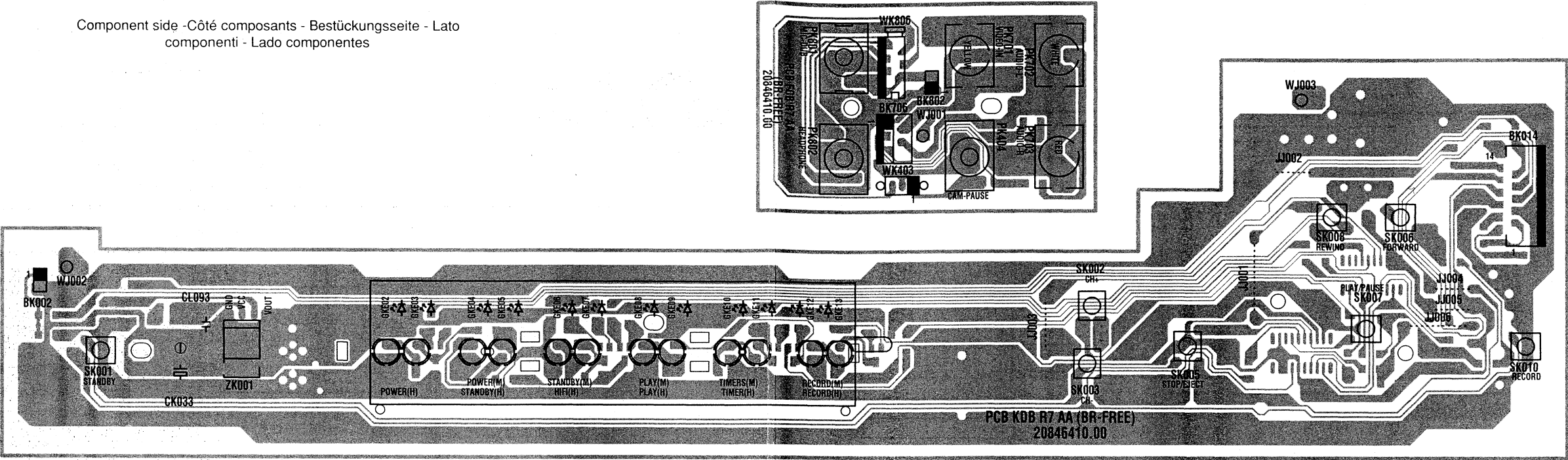




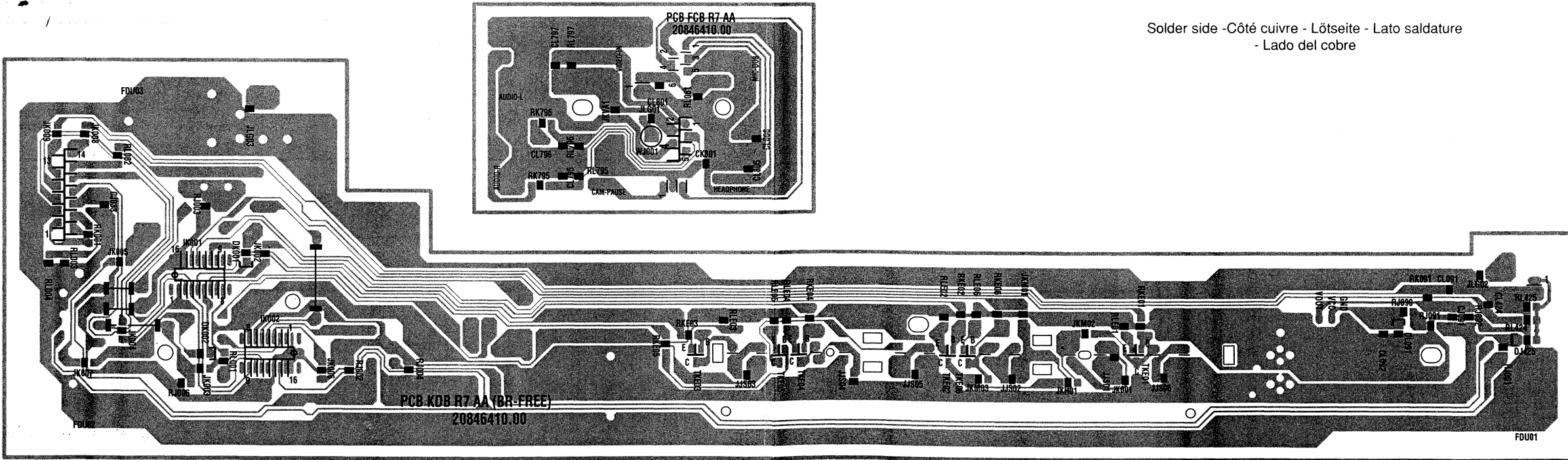
KEYBOARD WITHOUT DISPLAY - PLATINE DE COMMANDES SANS AFFICHEUR - BEDIENITEIL OHNE DISPLAY - TASTIERA SENZA DISPLAY - PLATINA MANDOS SIN VISUALIZADOR
SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBIID - SCHEMA - ESQUEMA



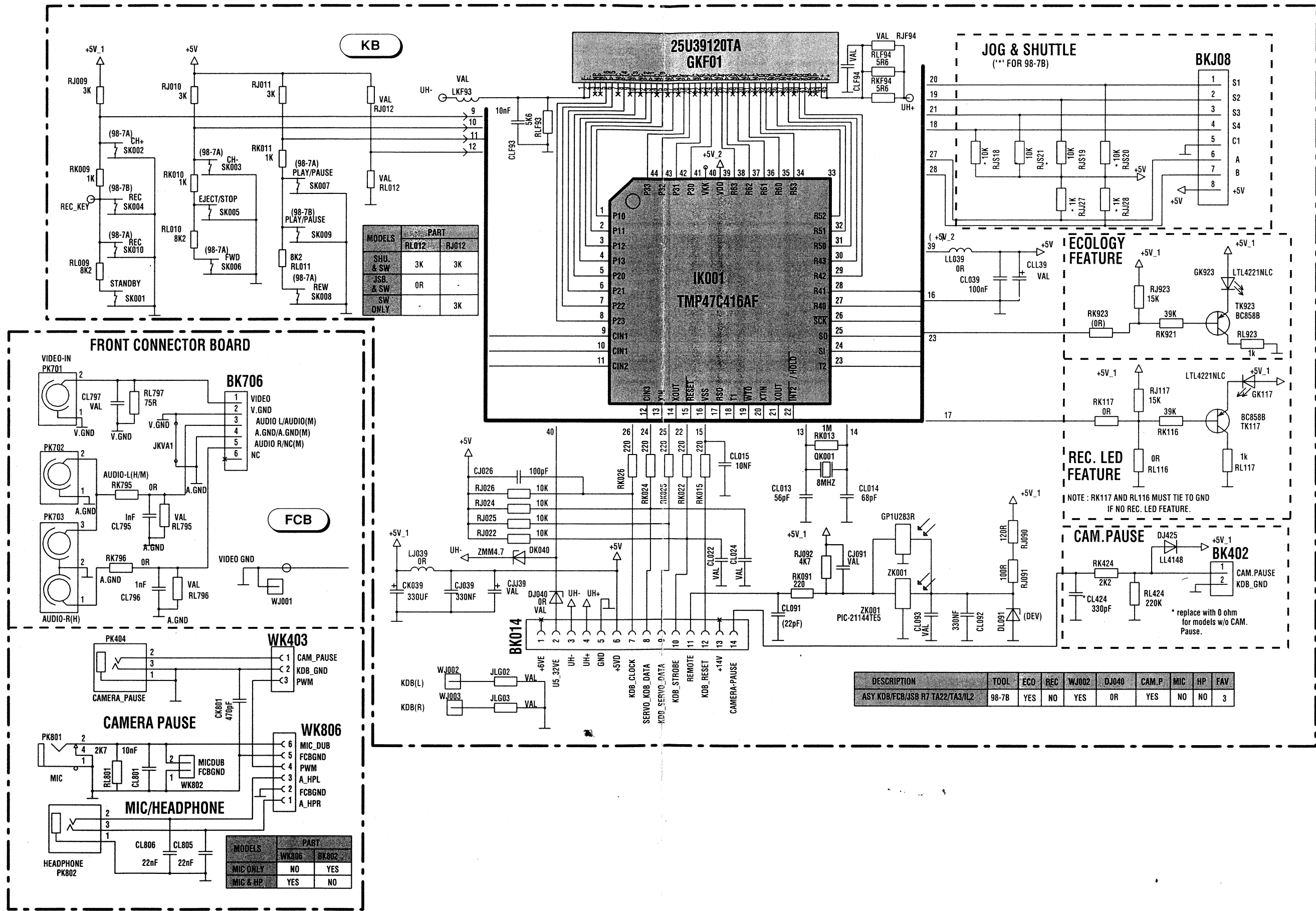
Component side - Côté composants - Bestückungsseite - Lato componenti - Lado componentes



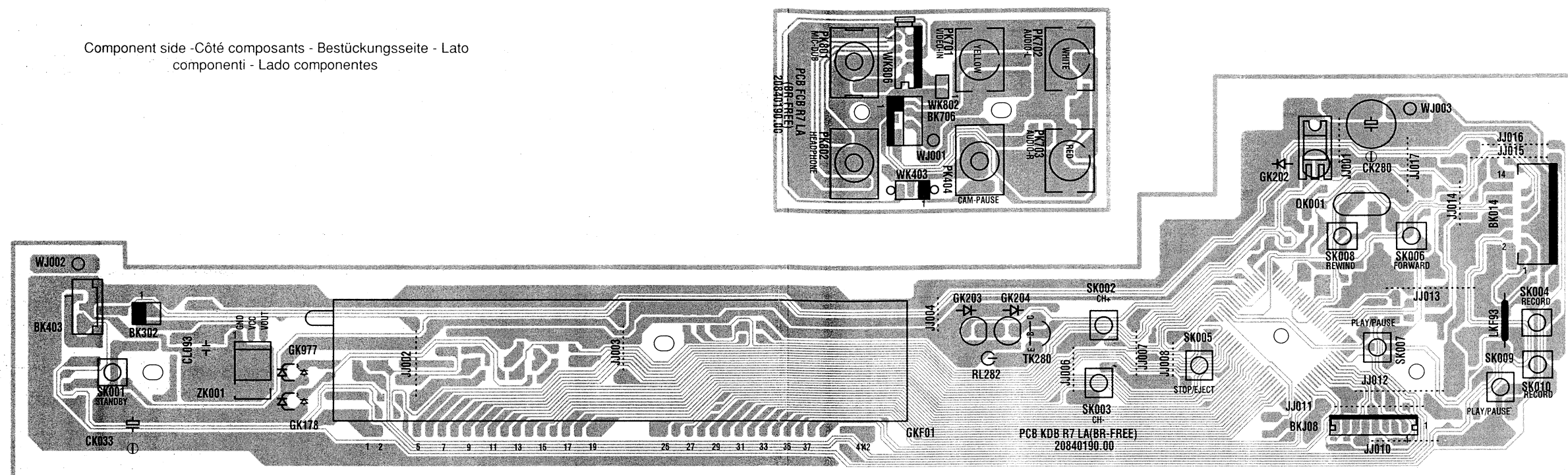
Solder side - Côté cuivre - Lötseite - Lato saldature - Lado del cobre



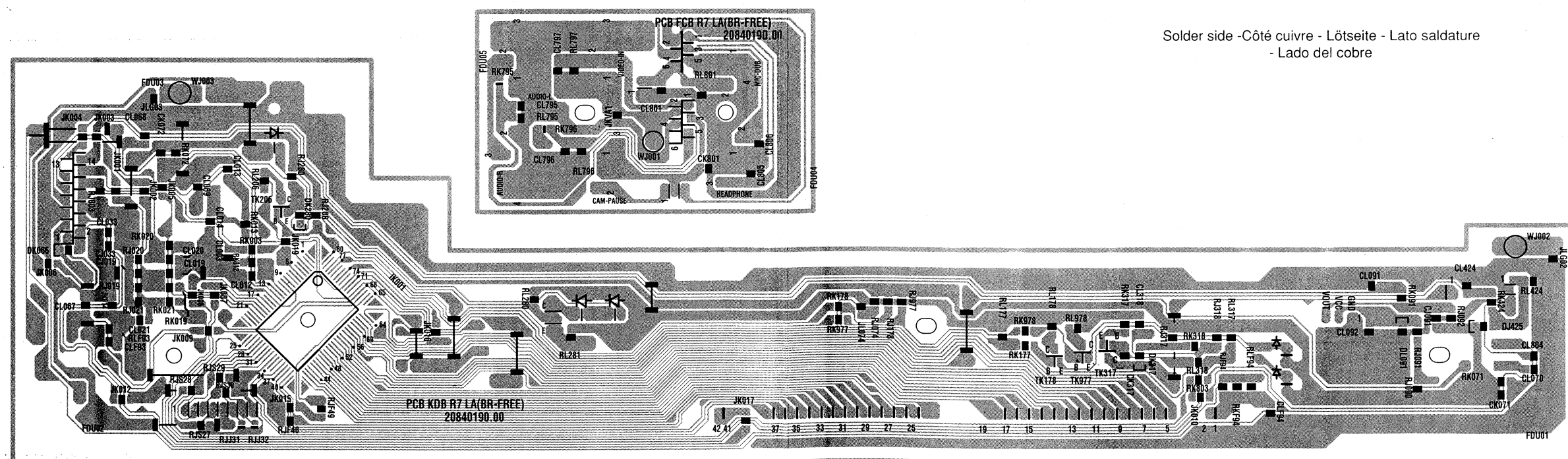
KEYBOARD WITH DISPLAY - PLATINE DE COMMANDES AVEC AFFICHEUR - BEDIENTEIL MIT DISPLAY - TASTIERA CON DISPLAY
- PLATINA MANDOS CON VISUALIZADOR
SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA



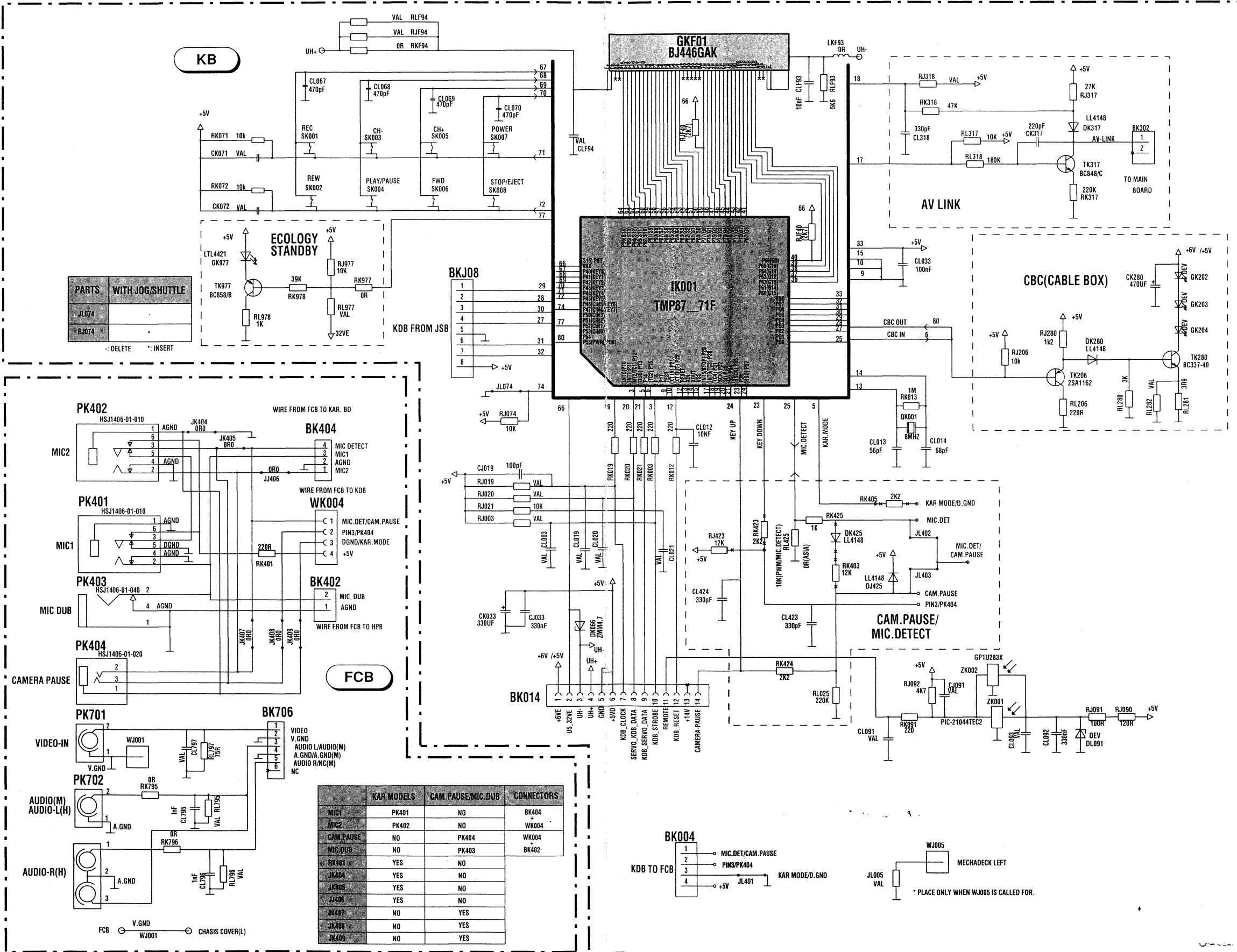
Component side -Côté composants - Bestückungsseite - Lato
componenti - Lado componentes



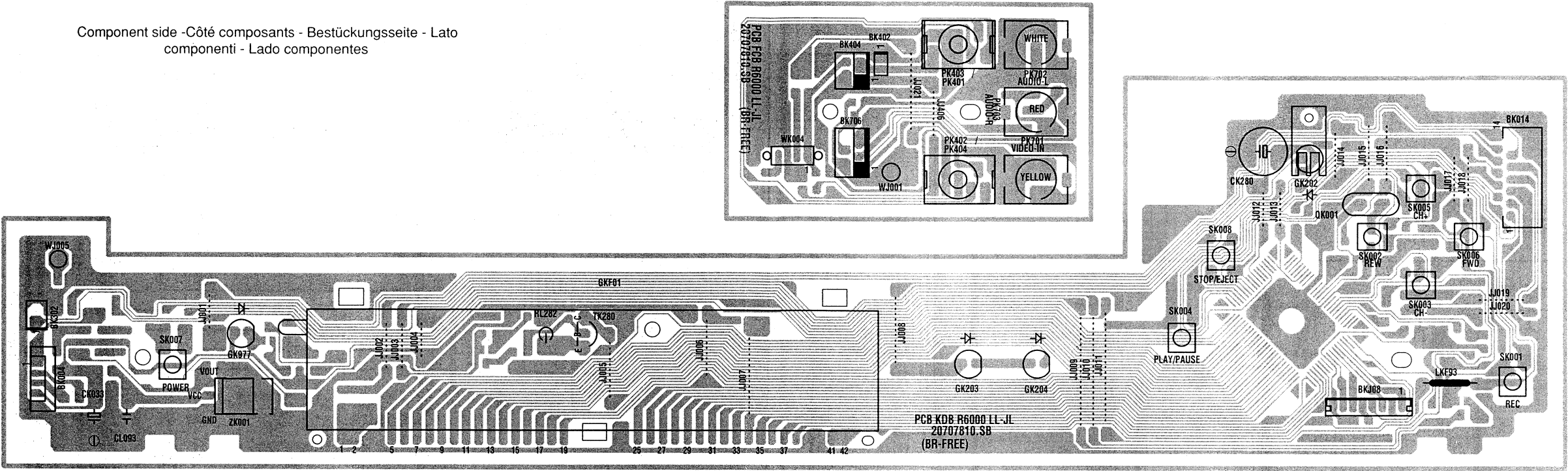
Solder side -Côté cuivre - Lötseite - Lato saldature
- Lado del cobre



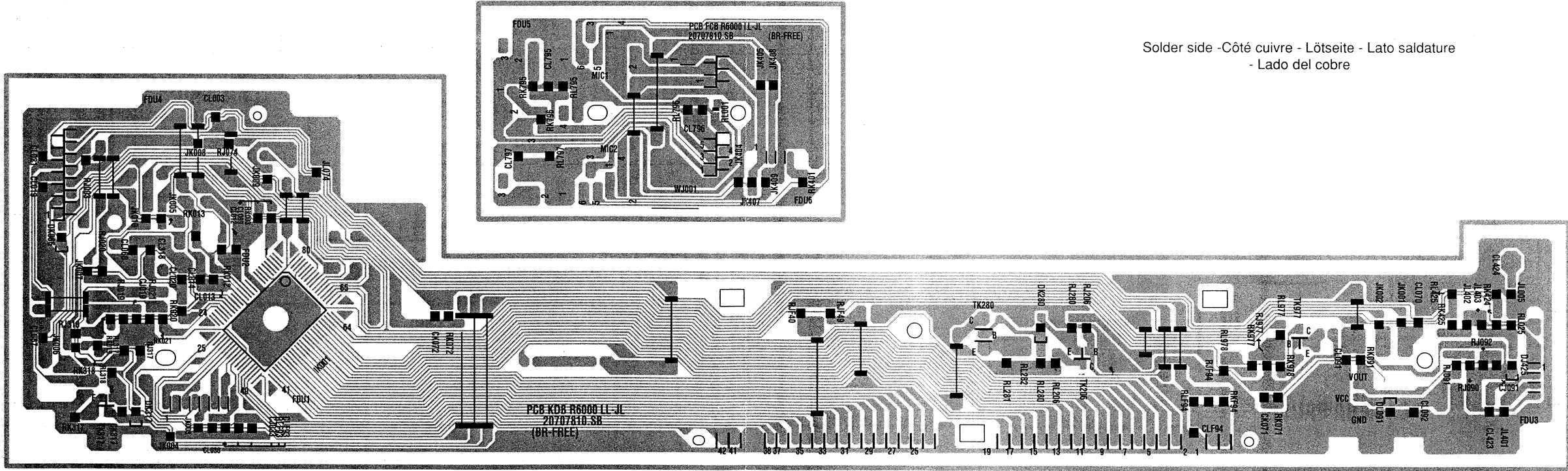
SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA



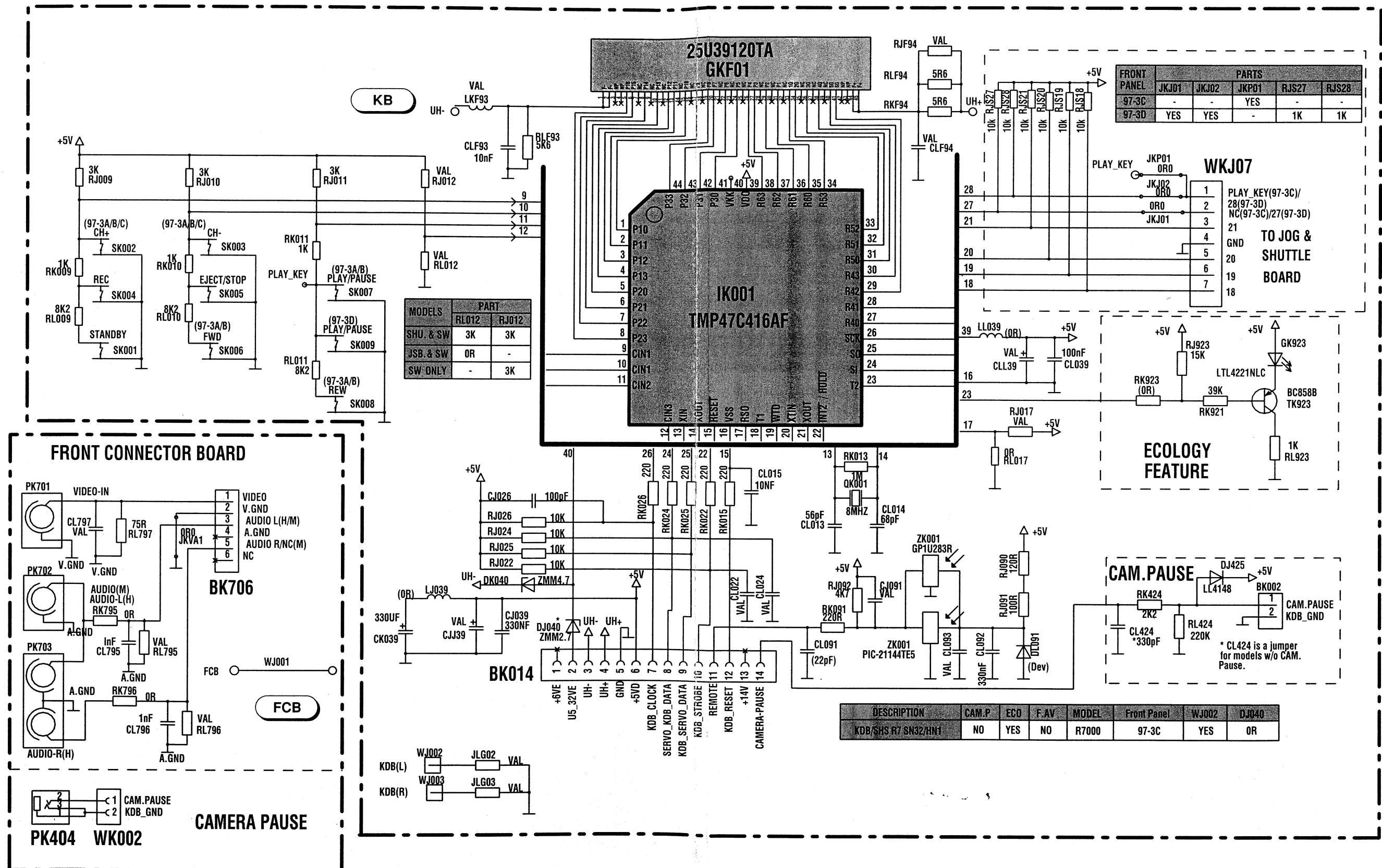
Component side - Côté composants - Bestückungsseite - Lato componenti - Lado componentes



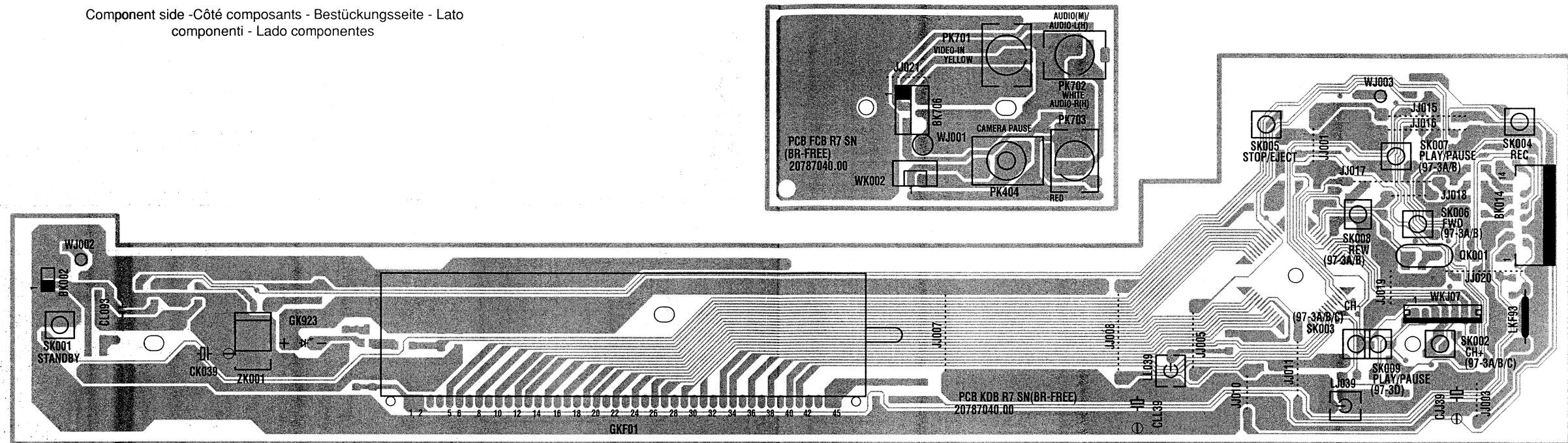
Solder side - Côté cuivre - Lötseite - Lato saldature - Lado del cobre



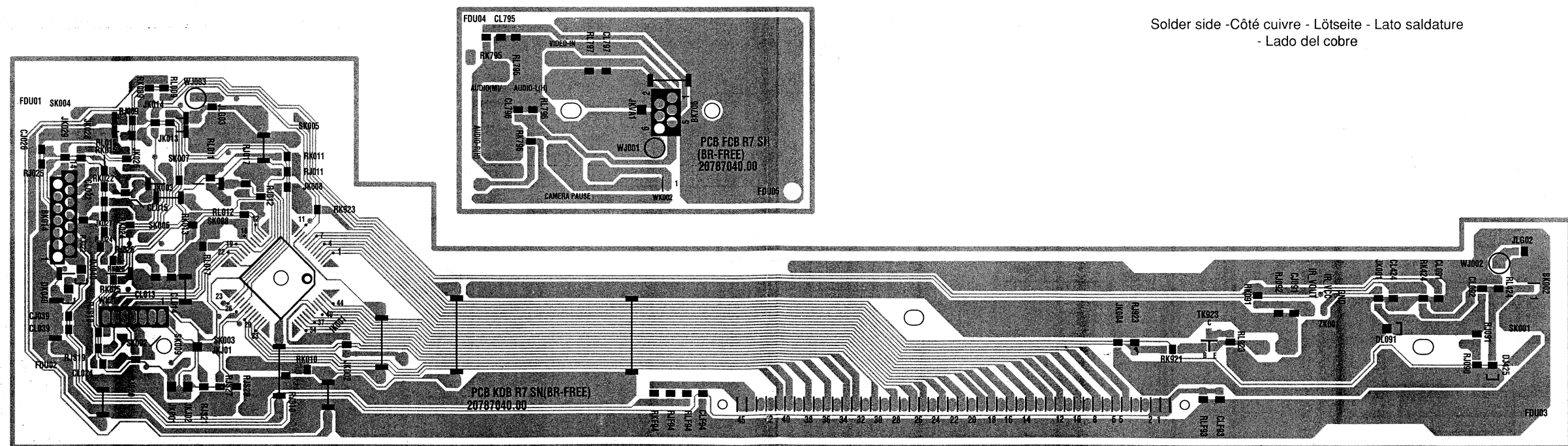
KEYBOARD WITH DISPLAY - PLATINE DE COMMANDES AVEC AFFICHEUR - BEDIENTEIL MIT DISPLAY - TASTIERA CON DISPLAY
 - PLATINA MANDOS CON VISUALIZADOR
 SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA



Component side -Côté composants - Bestückungsseite - Lato
componenti - Lado componentes



Solder side -Côté cuivre - Lötseite - Lato saldature
- Lado del cobre



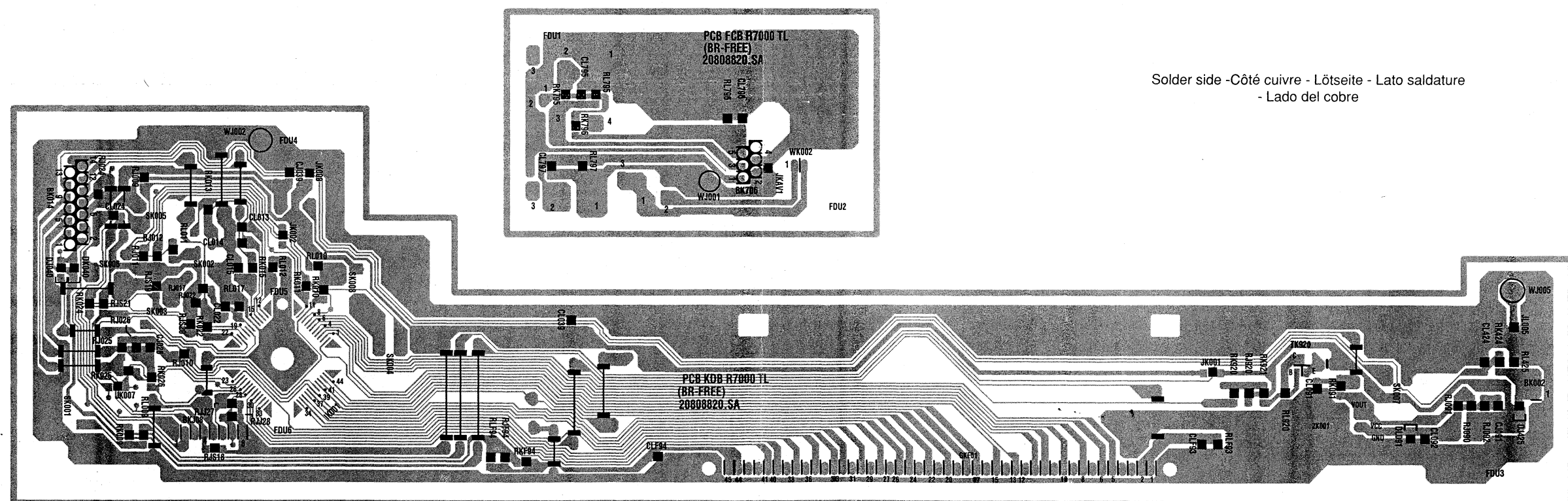
SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA



29

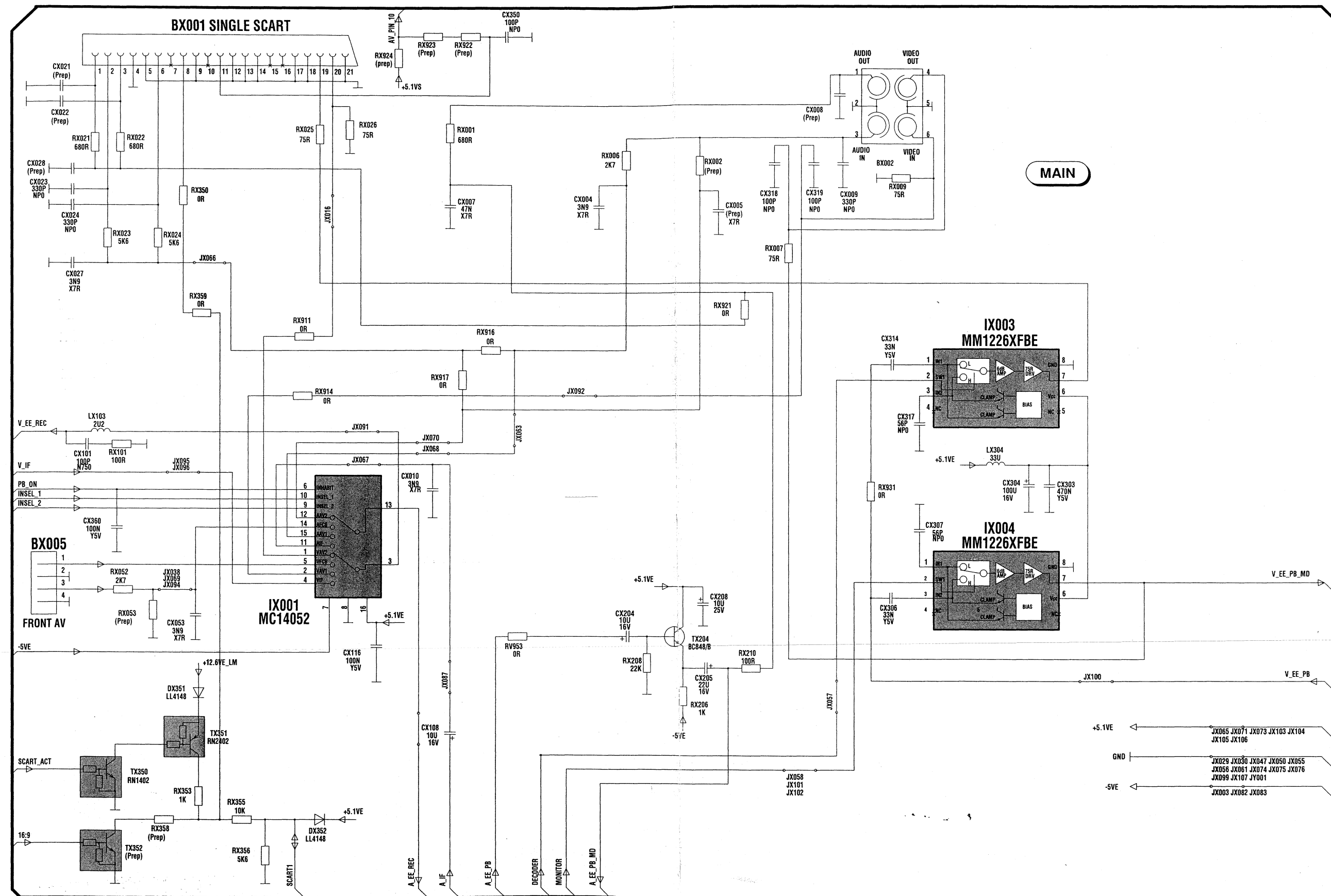


30



I/O INTERFACE - INTERFACE ENTREE / SORTIE - EINGANGS UND AUSGANGSINTERFACE - INTERFACCIA INGRESSO / USCITA - INTERFACE ENTRADA / SALIDA

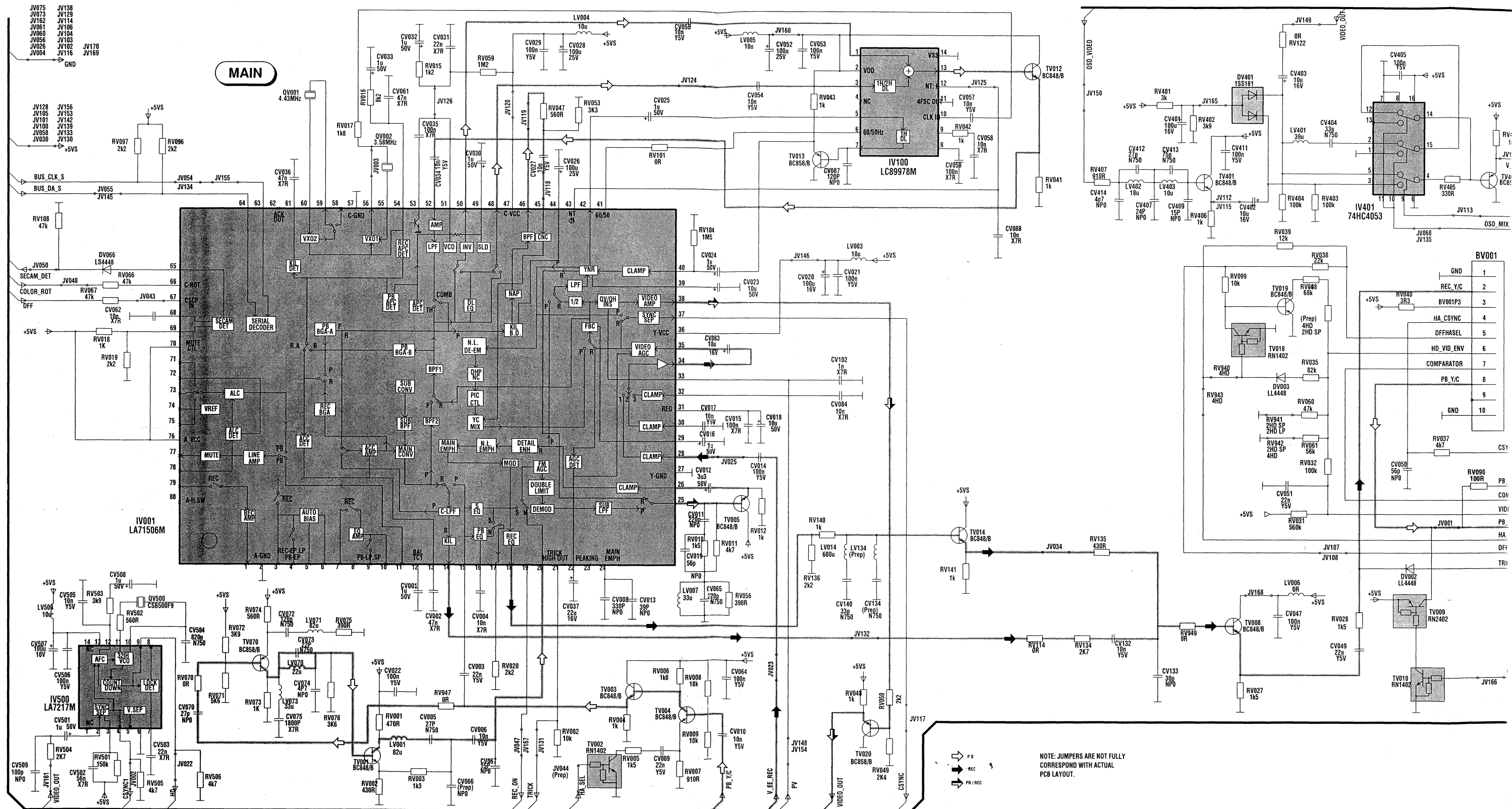
SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA



NOTE: 1) JUMPERS ARE NOT FULLY CORRESPONDED WITH ACTUAL PCB LAYOUT.
2) BX005 USE IN MODEL WITH FRONT CONNECTOR BOARD ONLY.

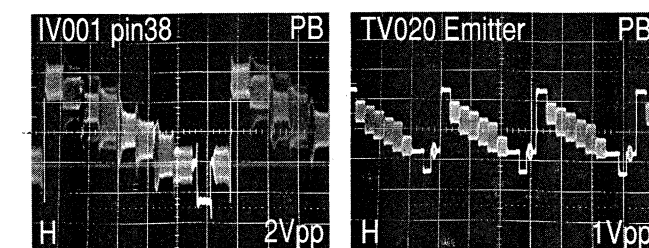
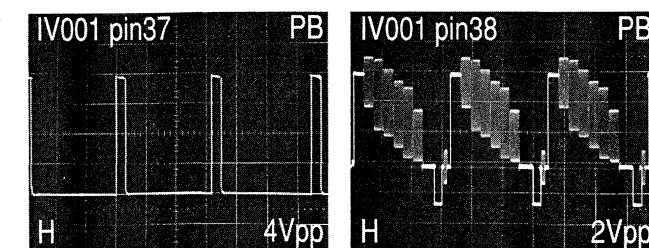
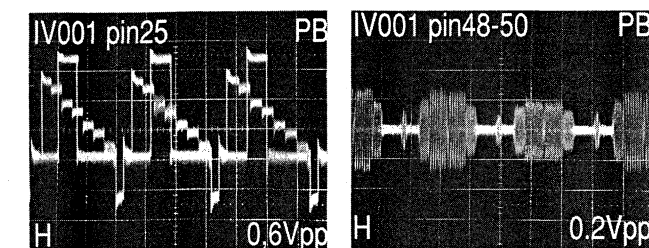
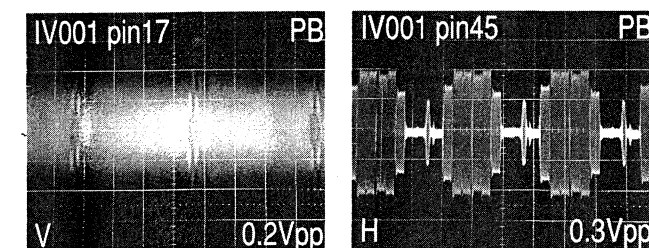
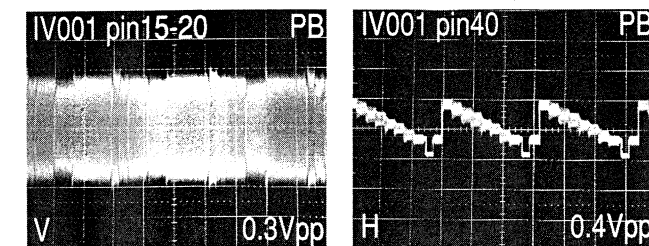
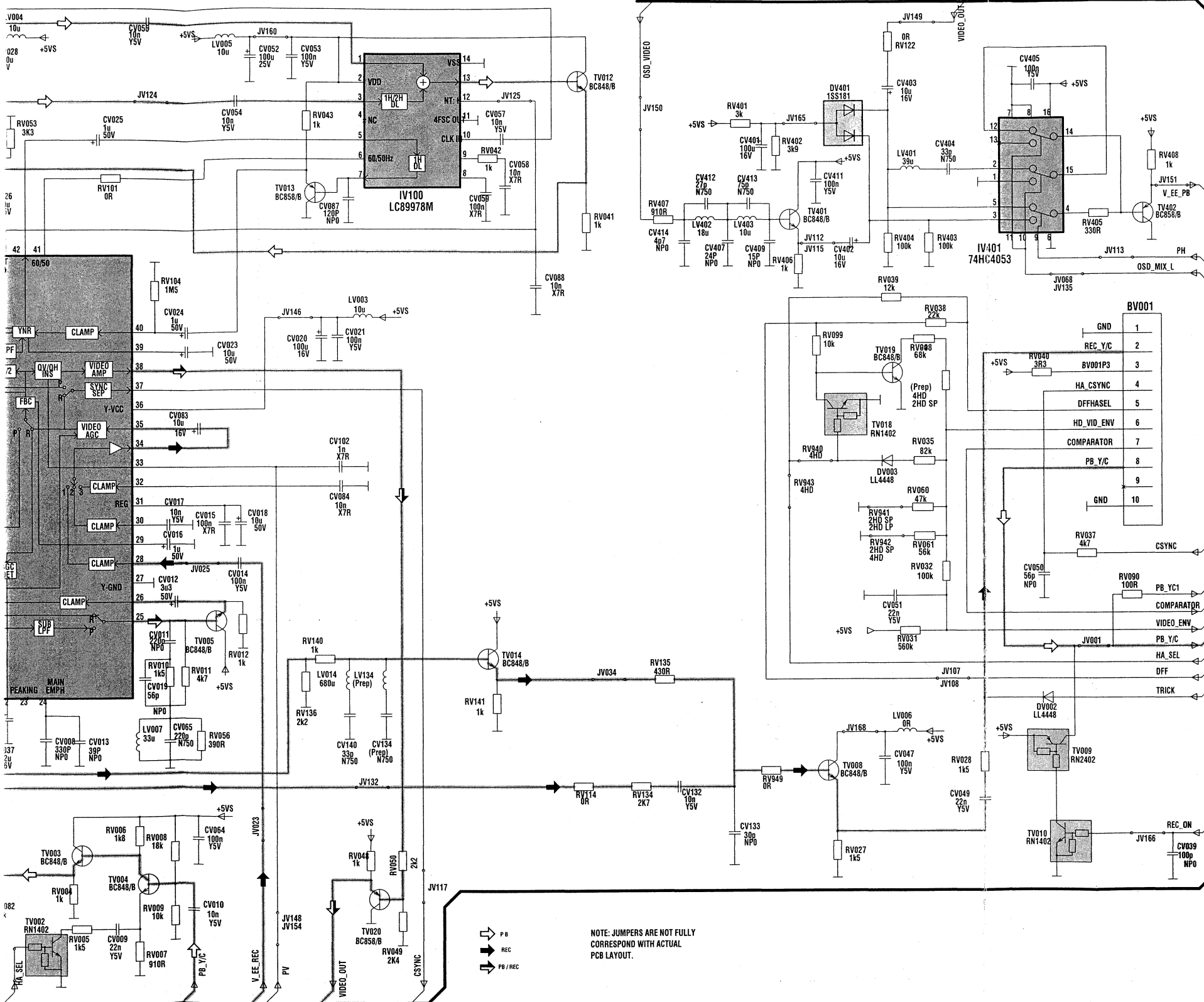
VIDEO SIGNAL PROCESSING - TRAITEMENT LUMINANCE / CHROMINANCE - VIDEOSIGNALVERARBEITUNG - ELABORAZIONE VIDEO - TRATAMIENTO VIDEO

SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA



CHROMINANCE - VIDEOSIGNALVERARBEITUNG - ELABORAZIONE VIDEO - TRATAMIENTO VIDEO

MA - ESQUEMA

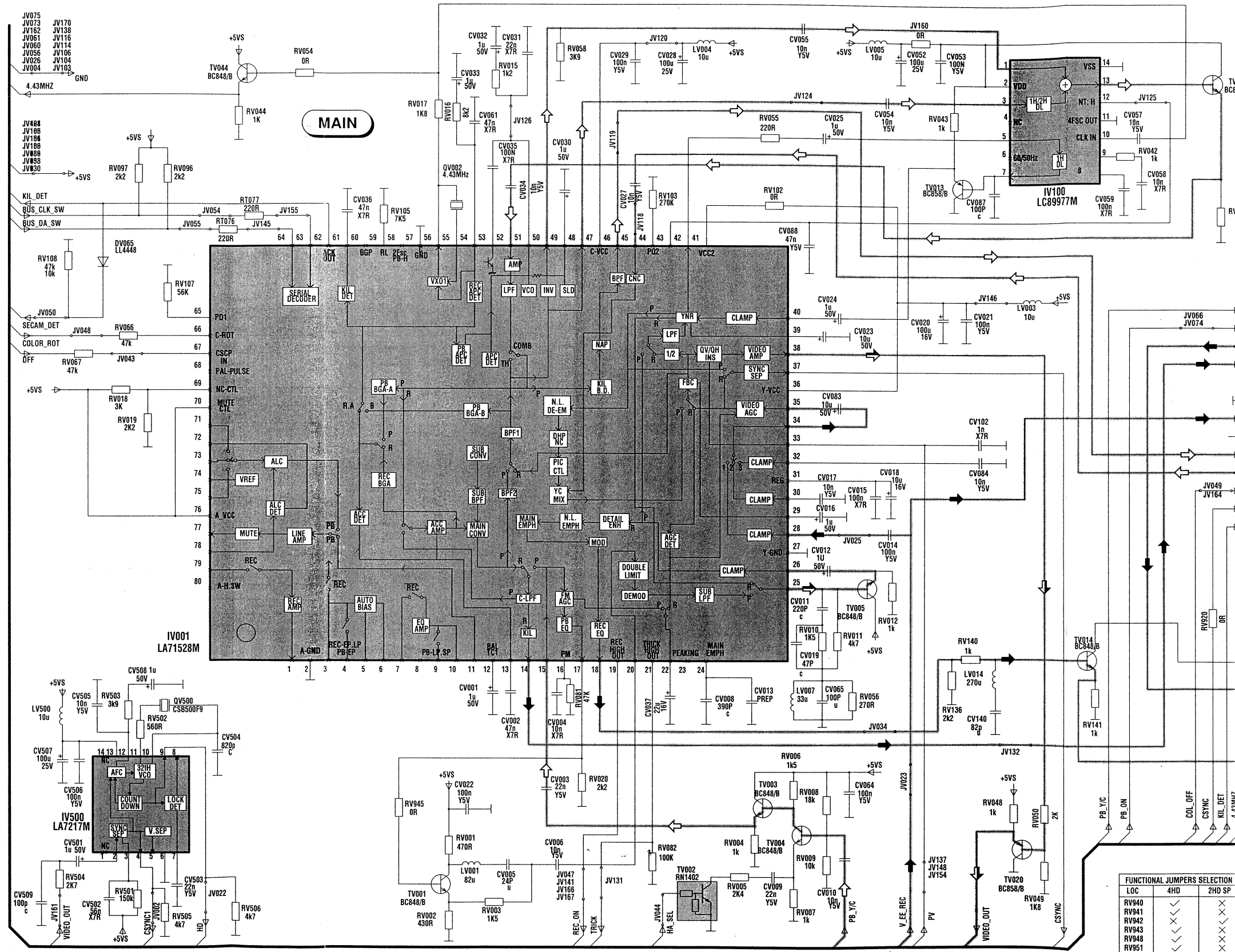


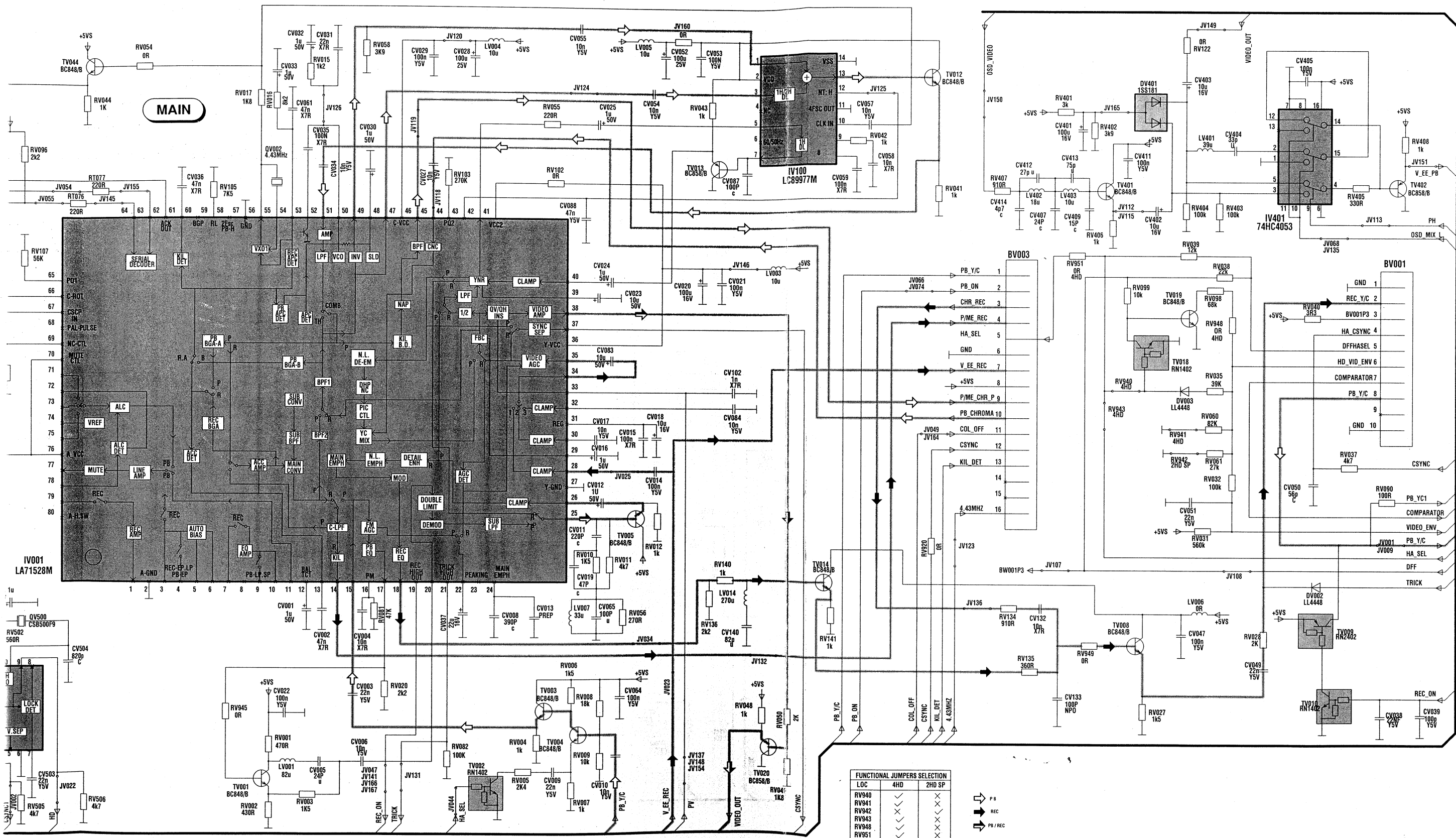
VIDEO	LOC	PIN	MODE		
			EE	PLAY	REC.
DV401	1	2.8	2.8	2.7	
	2	2.5	2.5	2.5	
	3	2.8	2.6	2.8	
IV001	1	NC	NC	NC	
	2	0	0	0	
	3	NC	NC	NC	
	4	NC	NC	NC	
	5	NC	NC	NC	
	6	NC	NC	NC	
	7	NC	NC	NC	
	8	NC	NC	NC	
	9	NC	NC	NC	
	10	NC	NC	NC	
	11	NC	NC	NC	
	12	2.3	2.3	2.3	
	13	2.1	1.9	2.1	
	14	2.7	0	2.7	
	15	0.3	3.2	0	
	16	2.7	2.8	2.7	
	17	2.7	1.4	2.7	
	18	2.2	1.6	2.1	
	19	0	0	4.1	
	20	3.1	3.1	3.1	
	21	0	4.1	0	
	22	1.6	1.9	1.6	
	23	0	1.6	0	
	24	2.5	1.9	2.5	
	25	2.2	2.2	2.2	
	26	3.1	3.1	3.1	
	27	0	0	0	
	28	2.3	0.3	2.3	
	29	2.2	2.2	2.3	
	30	1.8	0.3	1.8	
	31	4.1	4.1	4.1	
	32	1.8	0.3	1.8	
	33	0	0.2	0.2	
	34	2.3	2.1	2.3	
	35	3.1	3.1	3.1	
	36	5	4.9	5	
	37	0.6	0.6	0.6	
	38	1.9	1.8	1.9	
	39	3.3	3.3	3.2	
	40	3.1	3	3.1	
	41	NC	NC	NC	
	42	2	1.9	2	
	43	0.4	0.4	0.4	
	44	1.8	1.8	1.8	
	45	1.9	1.9	1.9	
	46	0	2.6	0	
	47	5	5	5	
	48	2.8	2.8	2.8	
	49	4.2	4.2	4.2	
	50	2.9	2.8	2.8	
	51	4.2	4.2	4.2	
	52	3.2	3.2	3.2	
	53	0.6	0.5	0.5	
	54	2.2	2.2	2.2	
	55	5	5	5	
	56	5	5	5	
	57	0	0	0	
	58	NC	NC	NC	
	59	2.3	2.3	2.3	
	60	3.9	3.9	3.9	
	61	1.9	1.9	1.9	
	62	0	0	0	

VIDEO SIGNAL PROCESSING - TRAITEMENT LUMINANCE / CHROMINANCE - VIDEO SIGNALVERARBEITUNG - ELABORAZIONE VIDEO - TRATAMIENTO VIDEO
SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBILD - SCHEMA - ESQUEMA

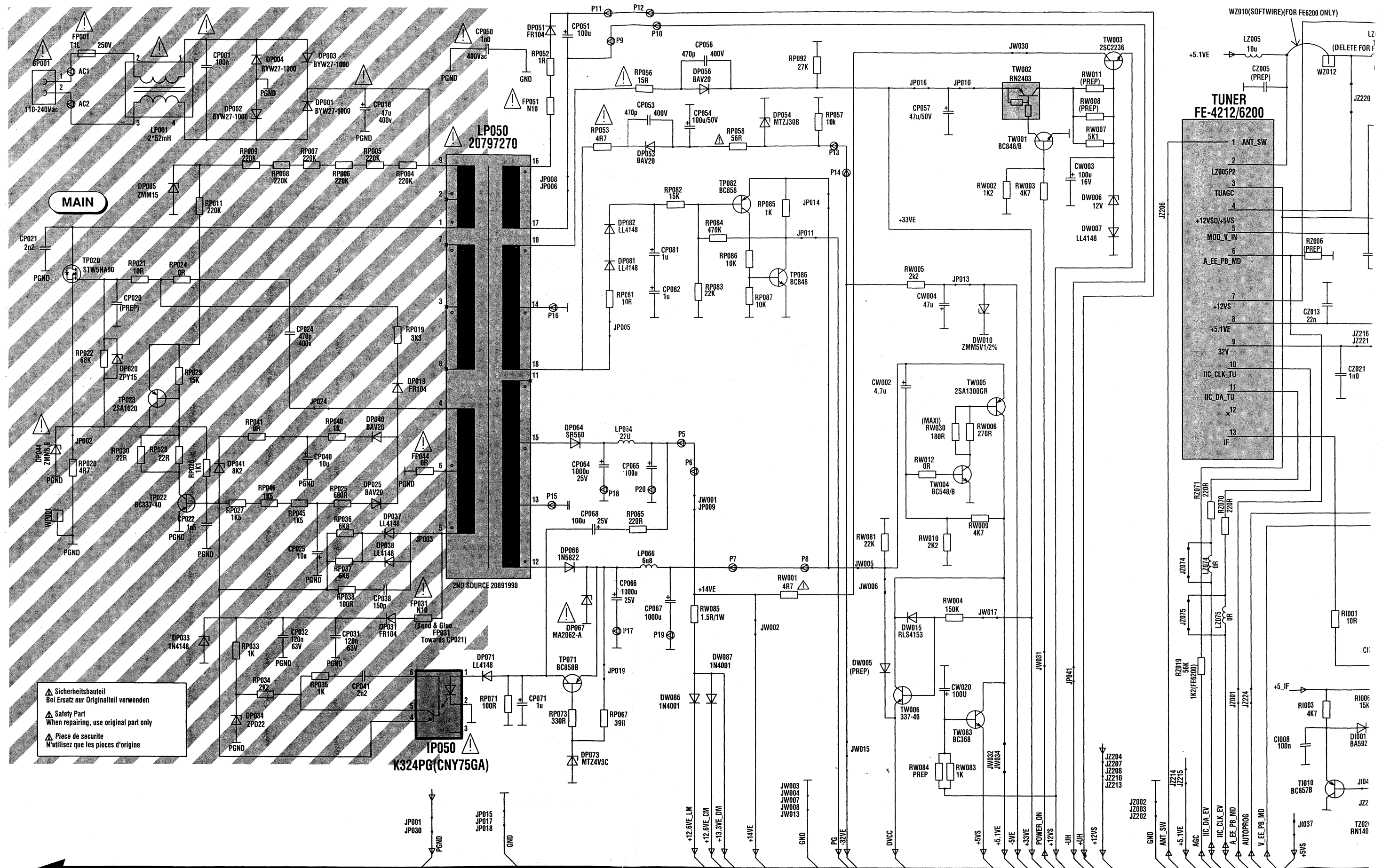
VIDEO	LOC	PIN	MODE		
			EE	PLAY	REC.
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	64	4.8	4.8	4.8	
	65	0.3	0.3	0.3	
	66	0.3	0.3	0.3	
	67	0	0	0	
	68	0.8	0.8	0.8	
	69	3.5	3.4	3.4	
	70	5	5	5	
	71	NC	NC	NC	
	72	NC	NC	NC	
	73	NC	NC	NC	
	74	NC	NC	NC	
	75	NC	NC	NC	
	76	5	5	5	
	77	NC	NC	NC	
	78	NC	NC	NC	
IV100	1	2.5	2.5	2.5	
	2	5	5	5	
	3	2.5	2.5	2.5	
	4	NC	NC	NC	
	5	2.3	2.3	2.3	
	6	NC	NC	NC	
	7	1.5	1.5	1.5	
	8	8.9	8.9	8.9	
IV401	9	2.2	2.2	2.2	
	10	0.9	0.9	0.9	
	11	0	0	0	
	12	0.4	0.4	0.4	
	13	1.9	1.9	1.9	
	14	0	0	0	
	1	0	0	0	
	2	0.4	0.4	0.4	
	3	2.5	2.5	2.5	
	4	2.8	2.7	2.8	
	5	2.8	3.1	2.8	
	6	0	0	0	
	7	0	0	0	
	8	0	0	0	
	9	0	0	0	
	10	5.1	5.1	5.1	
IV500	11	5.1	5.1	5.1	
	12	0	0	0	
	13	NC	NC	NC	
	14	2.8	2.6	2.8	
	15	0	0	0	
	16	5	5	5	
	1	NC	NC	NC	
	2	2.4	2.4	2.4	
	3	3.3	3.4	3.3	
	4	3.8	3.8	3.8	
	5	NC	NC	NC	
	6	0	0	0	
	7	4.9	4.9	4.9	
	8	NC	NC	NC	
	9	3.9	3.9	3.8	
	10	4	4	4	
	11	2.7	2.7	2.7	
	12	2.2	2.2	2.2	
	13	5	5	5	
	14	NC	NC	NC	

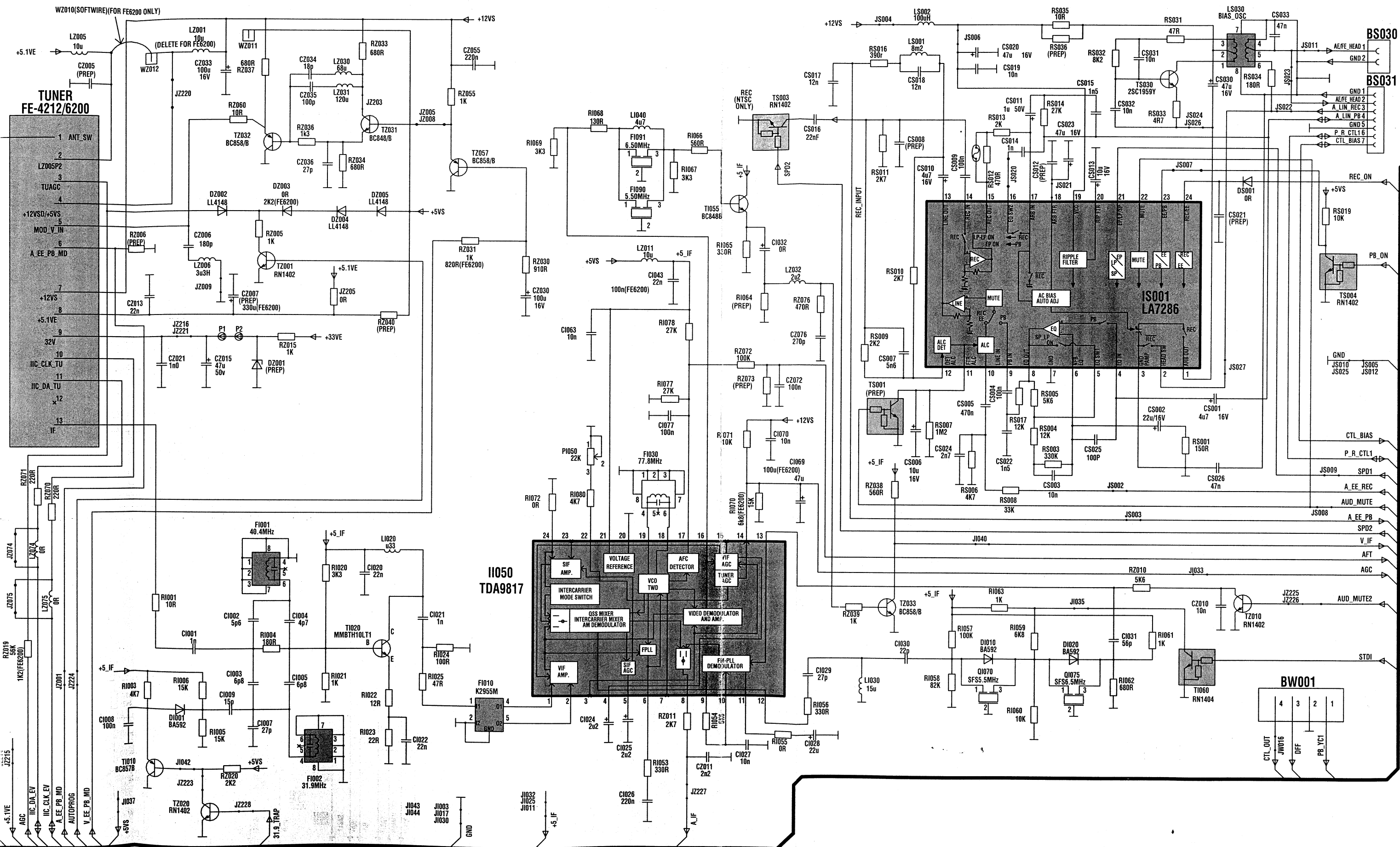
VIDEO	LOC	PIN	MODE		
			EE	PLAY	REC.
TV001	E	1.2	1.2	1.2	
	B	1.9	1.9	1.9	
	C	3.7	3.7	3.7	
TV002	E	0	0	0	
	B	0	0	0	
	C	0.3	0.3	0.3	
TV003	E	2.7	2.6	2.6	
	B	3.3	3.3	3.3	
	C	5	5	5	
TV004	E	1.1	1.1	1.1	
	B	1.8	1.8	1.8	
	C	3.3	3.3	3.3	
TV005	E	1.5	1.5	1.5	
	B	2.1	2.1	2.1	
	C	5	5	5	
TV008	E	0.9	0.4	0.9	
	B	1.5	1	1.5	
	C	5	5	5	
TV009	E	5	5	5	
	B	5	5	0	
	C	1.9	1.8	5	
TV010	E	0	0	0	
	B	0	0	4.1	
	C	5	5	0	
TV012	E	1.3	1.3	1.3	
	B	1.9	1.9	1.9	
	C	5	5	5	
TV013	E	2.1	2.1	2.1	
	B	1.5	1.5	1.5	
	C	0	0	0	
TV014	E	1.5	1	1.5	
	B	2.1	1.6	2.1	
	C	5	5	5	
TV020	E	1.6	1.5	1.6	
	B	1	1	1	
	C	0	0	0	
TV044	E	1.6	1.6	1.6	
	B	2.3	2.2	2.2	
	C	5	5	5	
TV070	E	3.6	3.6	3.6	
	B	3	2.9	2.9	
	C	1.9	1.9	1.9	
TV401	E	1.4	1.4	1.4	
	B	2	2	2	
	C	5	5	5	
TV402	E	3.4	3.3	3.4	
	B	2.8	2.6	2.8	
	C	0	0	0	



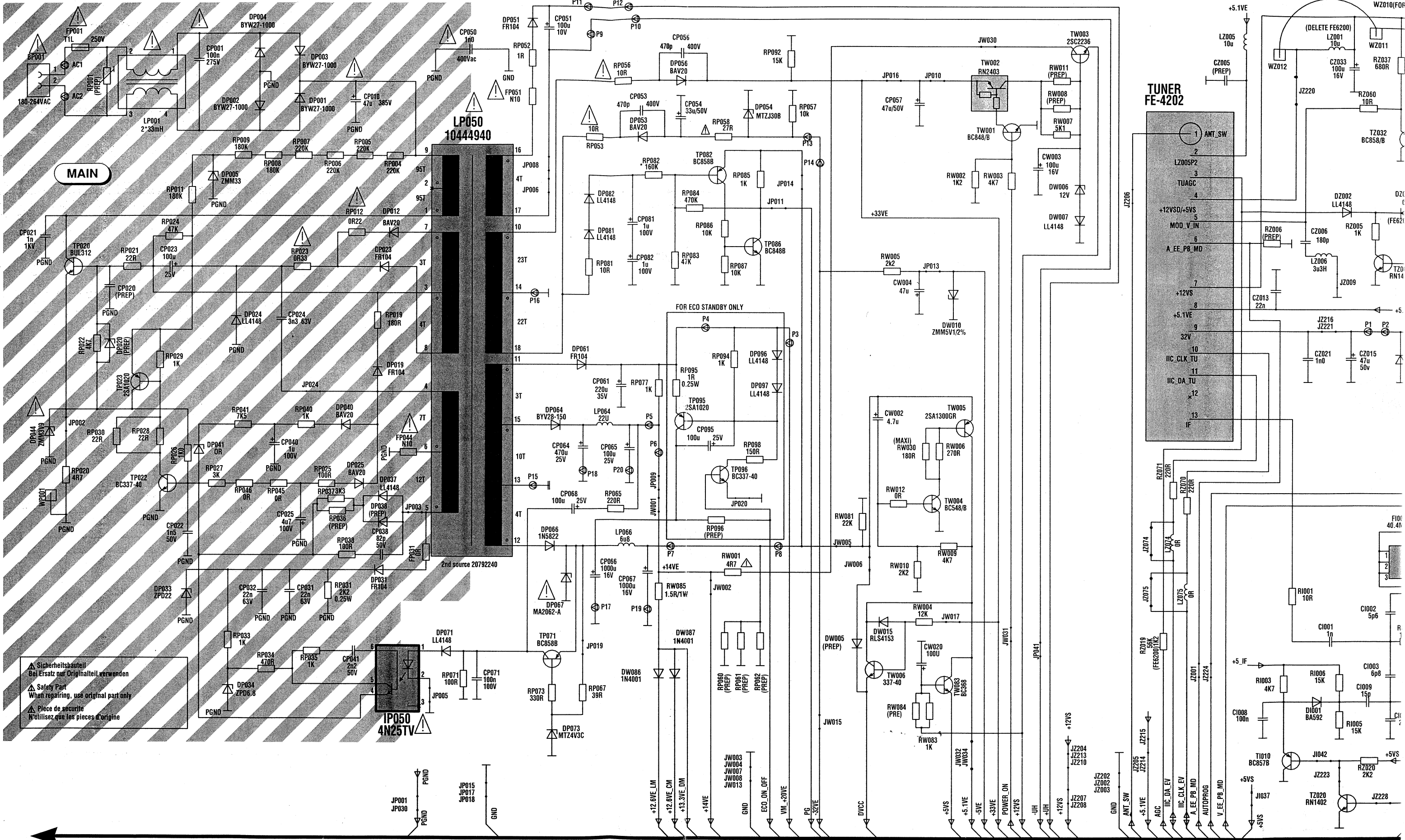


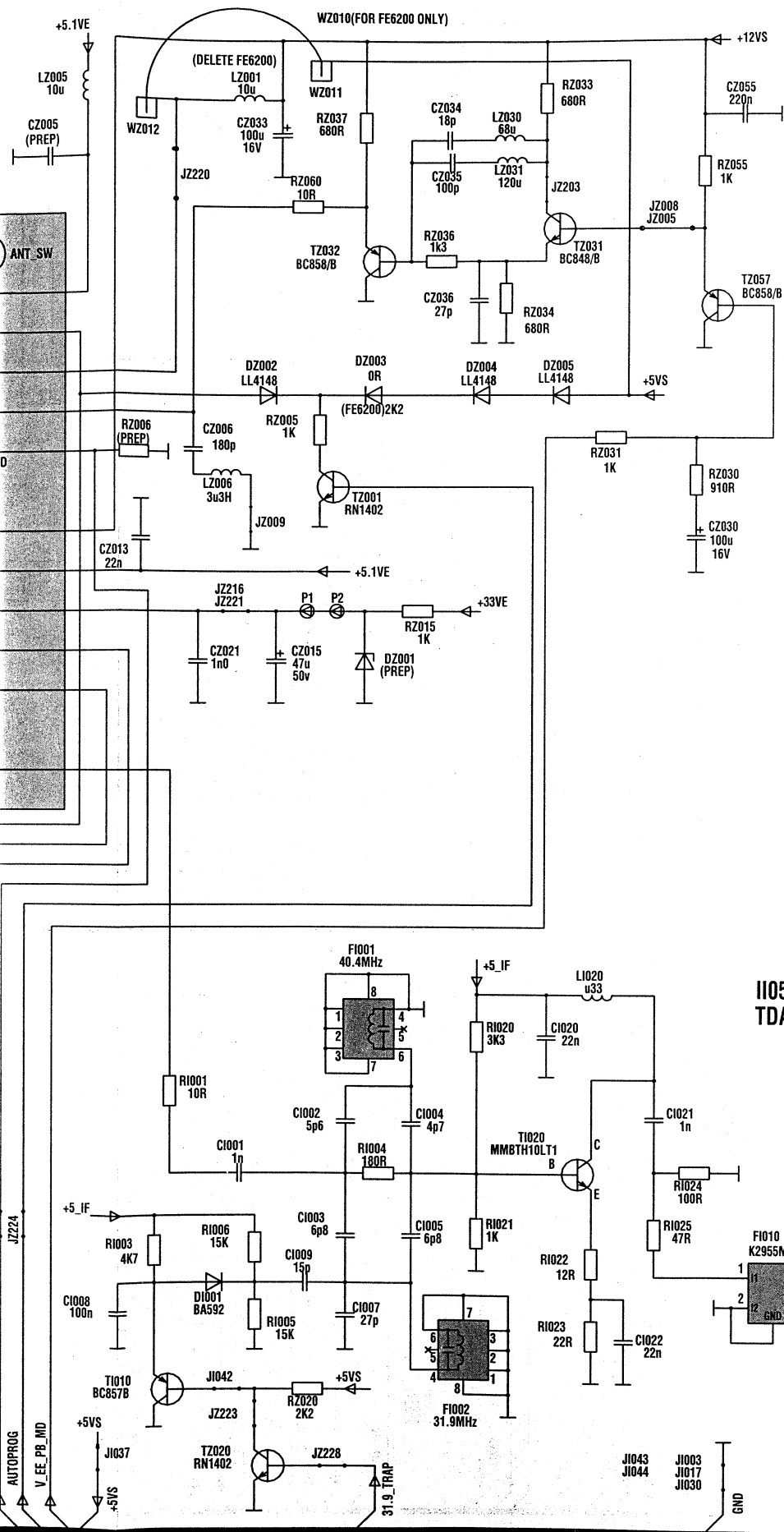
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SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBIID - SCHEMA - ESQUEMA





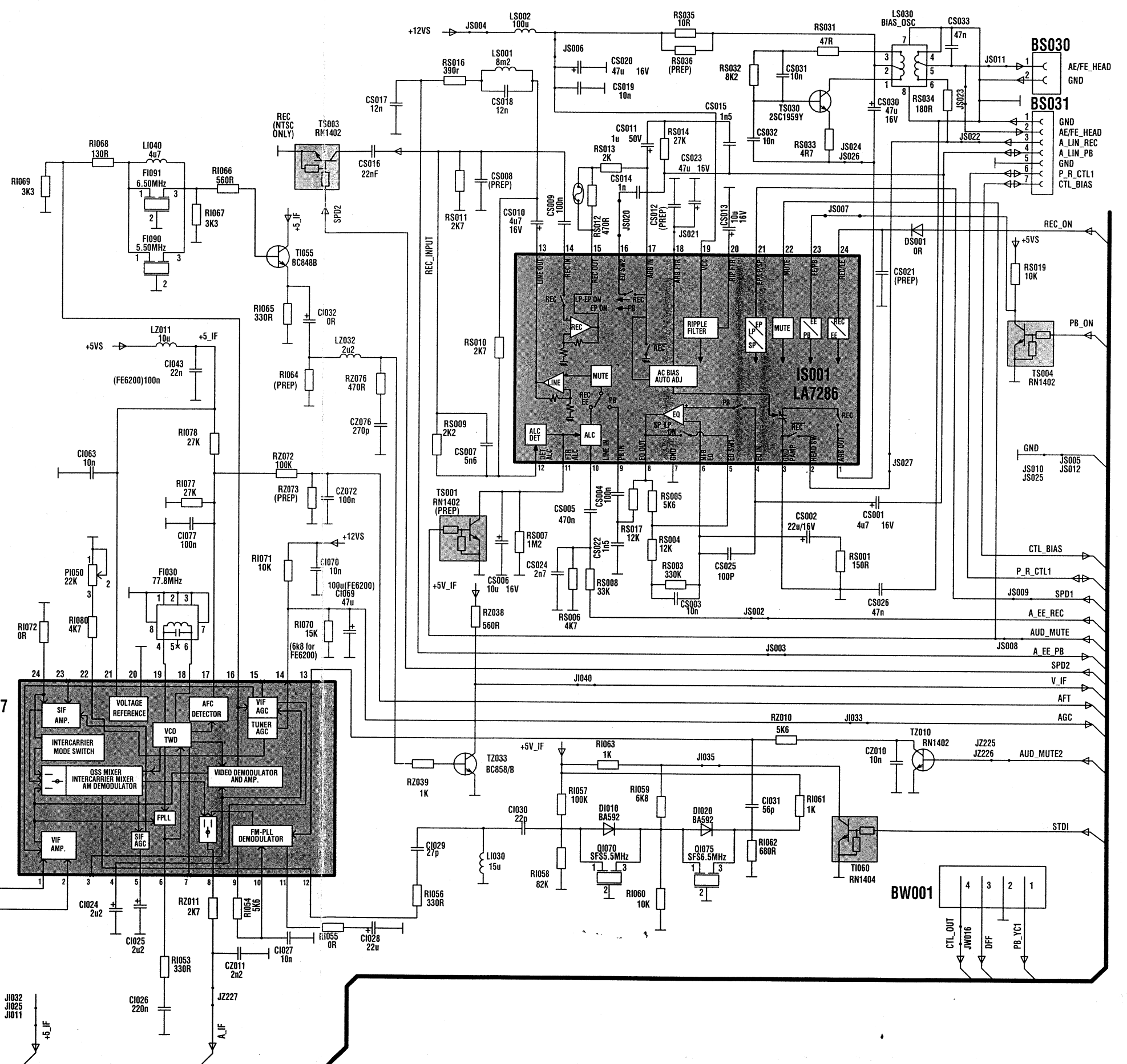
POWER SUPPLY INTERFACE / TUNER / IF SECTION - INTERFACE ALIMENTATION / TUNER / FI - NETZ-EL / TUNER / ZF - ALIMENTAZIONE / TUNER / IF - INTERFAZ ALIMENTA
SCHEMATIC DIAGRAM - SCHEMA DE PRINCIPE - SCHALTBIKD - SCHEMA - ESQUEMA





* : Modification

(LAST UPDATE : 29.07.97)
(PCB REFERENCE : 20663160.SB)



Abbreviations - Abreviations - Abkürzungen - Abbreviazioni - Abreviaciones

AC	Alternating Current	FWD	Forward
ACC	Automatic Colour Control	GND	Ground
ACK	Automatic Colour Killer	GCA	Gain Controlled Amplifier
AD.REF	Analog/Digital Converter Reference	HASEL	Head Amplifier Select
AE	Audio Erase	HAB	Head Amplifier Board
AFC	Automatic Frequency Control	HD	Horizontal Synch Pulse
AGC	Automatic Gain Control	HPF	High Pass Filter
A_IF	Audio IF	I.R	Infra Red
ALC	Automatic Level Control	ID	Identification
AMP	Amplifier	INP/IN	Input
APC	Automatic Phase Control	KDB	Key Display Board
AP.CONT	Aperture Control	LIM	Limiter
AV	Audio-Video	LP	Long Play
A/V SWP	Audio/Video Switching Point (DRUM FF)	LPF	Low Pass Filter
B.EMPH	Burst Emphasis	MESECAM	Middle East Secam
B.DEEMPH	Burst Deemphasis	NC	Noise Canceller
BG	Burst Gate	OSD	On Screen Display
BID	Burst Identification	PB	Play Back
BLK	Blanking	PB_C	Play Back Chroma
BPF	Band Pass Filter	PCB	Printed Circuit Board
CAP	Capstan	PDC	Program Delivery Control
CBC	Cable Box Control (Satellite Control)	PG	Pulse Generator
CCD	Charge Coupled Device	PH	Pseudo Horizontal Synch
CH	Channel	PIF	Picture IF
CFG	Capstan Frequency Generator	PLL	Phase Locked Loop
CLK	Clock	PS	Phase Switch
COMP	Comparator	PV	Pseudo Vertical Synch
CONV	Converter	PWM	Pulse Width Modulation
CPWM	Capstan Pulse Width Modulation	REC	Record
C-REG	Capstan Regulation	REC_C	Record Chroma
CR	Color Rotary	REW	Rewind
CS	Chip Select	REV	Reverse
CSYNC	Composite Synch	SCL	Serial Clock
CTL	Control	SDA	Serial Data
DC	Direct Current	SEC	SECAM
D.LIM	Double Limiter	SU REEL	Supply Reel
DEEMPH	Deemphasis	SMPS	Switch Mode Power Supply
DET	Detector	SP	Standard Play
D-FG	Drum Frequency Generator	SS	Synch Separator
DFF	Drum Flip Flop	SW	Switch
DIF.EQ	Differential Equalizer	TU REEL	Take Up Reel
DIG	Digital	TMB	Terminal Board
DLY	Delay	VAL	Components without value and not on the PCB
DOC	Drop Out Compensation	VCA	Voltage Controlled Amplifier
E-E	Electronic-Electronic	VCO	Voltage Controlled Oscillator
EMPH	Emphasis	VCR	Video Cassette Recorder
ENV	Envelope	VD	Supply Voltage Digital
EP	Extended Play	VE	Voltage (Ever)
EQ	Equalizer	V_ENV	Video Envelope
F.E	Full Erase	V_IF	Video IF
F.REW	Fast Rewind	VS	Voltage (Switched)
F.FWD	Fast Forward	VM	Motor Voltage (Drum & Loading motor)
F/R	Forward/Rewind	VMC	Motor Voltage (Capstan motor)
FCB	Front Connection Board	VPS	Video Program System
FF	Fast Forward	W/D	White/Dark
FG	Frequency Generator	Y/C	Luminance/Chrominance
FMCI	FM Carrier Interleave		

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